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COMPARATIVE ZOOLOGY,

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The gift of the U. S. National Museum

No. 6573,

March 2. 1891





Department of the Interior:

U. S. NATIONAL MUSEUM.

— Serial Number 42 —

# BULLETIN

OF THE

UNITED STATES NATIONAL MUSEUM.

No. 32.

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## ADVERTISEMENT.

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This work (Bulletin No. 32) is the forty-second of a series of papers intended to illustrate the collections of natural history and ethnology belonging to the United States, and constituting the National Museum, of which the Smithsonian Institution was placed in charge by the act of Congress of August 10, 1846.

It has been prepared at the request of the Institution, and printed by authority of the honorable Secretary of the Interior.

The publications of the National Museum consist of two series—the Bulletins, of which this is No. 32, in continuous series, and the Proceedings, of which the ninth volume is now in press.

The volumes of Proceedings are printed, signature by signature, each issue having its own date, and a small edition of each signature is distributed to libraries promptly after its publication.

From time to time the publications of the Museum which have been issued separately are combined together and issued as volumes of the Miscellaneous Collections. These are struck off from the stereotype plates from which the first edition was printed, and in this form are distributed by the Smithsonian Institution to libraries and scientific societies throughout the world. Volume 13 of these collections includes Bulletins 1 to 10, inclusive; volume 19, volumes 1 and 2 of the Proceedings; volume 22, volumes 3 and 4 of the Proceedings; and volume 23, Bulletins 11 to 15, inclusive.

Full lists of the publications of the Museum may be found in the current catalogues of the publications of the Smithsonian Institution.

Papers intended for publication in the Proceedings and Bulletins of the National Museum are referred to the Committee on Publications, composed as follows: T. H. Bean, A. Howard Clark (editor), Otis T. Mason, Leonhard Stejneger, Frederick W. True, and Lester F. Ward.

SPENCER F. BAIRD,  
*Secretary of the Smithsonian Institution.*

SMITHSONIAN INSTITUTION,  
*Washington, December 1, 1886.*

CATALOGUE

OR

Batrachians and Reptiles

OR

Central America and Mexico

BY

E. D. COPE.



WASHINGTON:  
GOVERNMENT PRINTING OFFICE.  
1887.



## LETTER OF TRANSMITTAL.

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PHILADELPHIA, January 16, 1886.

DEAR SIR: In the following pages you will find a systematic and synonymic catalogue of the species of Batrachia and Reptilia described up to this date as inhabiting Central America and Mexico. It is very largely based on the specimens contained in the Museum of the Smithsonian Institution. To each species is added a list of the localities at which it has been discovered, together with the name of the discoverer, or, in the absence of that, with the name of the author who is responsible for the correctness of the locality.

In the great majority of cases I have seen the species, and am responsible for their validity, but I have admitted a number on the authority of other authors. For aid in the identification and in other respects, I am indebted to the magnificent report on reptiles and amphibians by Duméril and Bocourt in the series published by the Mission Scientifique au Mexique et dans l'Amerique Centrale, and to the work of Günther in the *Biologia Centrali-Americana*, of which four numbers have appeared up to this date. The receipt, at the last moment, of the Catalogue of the Lizards in the British Museum, by Boulenger, has enabled me to make a number of additions, but not to quote it as fully as I should like.

No attempt has been made to arrange the species in accordance with their geographical distribution, as the facts collected to this end are not yet sufficiently numerous.

The total number of genera represented in this catalogue is 197, and of species 705. These are divided between 135 Batrachia and 570 Reptilia. For further details, see end of catalogue.

I am your obedient servant,

E. D. COPE.

Professor S. F. BAIRD,

*Secretary of the Smithsonian Institution.*



# CATALOGUE

OF

## Batrachia and Reptilia of Central America and Mexico.

### Batrachia.

#### URODELA.

##### AMBLYSTOMIDÆ.

###### *Ambystoma* Tschudi.

Baird, Journ. Acad. Nat. Sci. Phila., 1847, p. 283; Cope, Proc. Phila. Acad., 1867, p. 167; *Siredon* Wagler, Nat.-System der Amphibien, 1830, p. 209.

**AMBLYSTOMA MEXICANUM** Shaw; Cope, Proc. Phila. Acad., 1867, p. 184; *Gyrinus mexicanus* Shaw, Nat. Misc. 1800, p. 343; *Siren pisciformis* Shaw; *Siredon axolotl* Wagler, Cuvier, Humboldt; *Hypochthon pisciformis* Gravenhorst; *Acholotes guttatus* Owen; *Siredon mexicanus* Baird.

Valley of Mexico, *Potts*, *Sumichrast*, *Flohr.*\*

**AMBLYSTOMA TIGRINUM** (Green) Baird, Journ. Acad. Nat. Sci. Phila., 1847, p. 292; Cope, Proceeds. Acad. Phila. 1867; Boulenger Cat. Bat. Grad. B. M., p. 43; *A. mavortium* and *A. proserpine* Baird, l. c.; *A. maculatum* Hallowell; *Ambystoma* Duméril, Nouv. Archives de Museum, ii; Comptes Rendus de l'Académie des Sciences, 1865, pp. 765-795; *Siredon tigrinus* Velasco, Naturaleza México, Dec., 1878.

“Mexico,” *Duméril*; between Chihuahua and the city of Mexico, *Potts*; Valley of Mexico, *Velasco*; Guanajuato (mountains), *Dugés*; Huasca, *Comision Geográfica*.

**AMBLYSTOMA DUMERILLI** Dugés; *Siredon dumerili* Dugés, Naturaleza México, 1870, p. 241, pl. v.

Lake Patzcuaro, Guanajuato, *Dugés*.

##### PLETHODONTIDÆ.

###### *Cedipina* Keferstein.

Archiv für Naturgeschichte, 1868, p. 299; *Opheobatrachus* Gray, Ann. Magaz. Nat. Hist., 1868, p. 297; Cope, Proc. Acad. Phila., 1868, p. 299.

\*The axolotls whose metamorphosis has been observed in confinement by Duméril and others, are not the spotted axolotl of the Valley of Mexico, whose metamorphosis has not yet been recorded, as I pointed out in the Am. Journal Sci. Arts, Feb., 1871, and as Boulenger observes in the Catalogue Batrachia Gradientia British Museum, 1882, p. 51. It is, however, probable that it takes place in the latter species, so that I have referred it to *Ambystoma*.

**EDIPINA UNIFORMIS** Keferst., Arch. f. Naturgeschichte, 1863, p. 299; *Opheobatrachus vernicularis* Gray, Annals and Magaz. Nat. Hist., 1868, p. 297; *Spelerpes uniformis* Boulenger, Catal. Batr. Grad. Brit. Museum 75.

*Hab.*—Costa Rica, *Salvin*; E. Costa Rica, *Gabb*; Costa Rica, *Seebach*.

**EDIPINA LINEOLUS** Cope; *Spelerpes lineolus* Cope, Proc. Acad. Nat. Sci. Phila., 1865, p. 196; *Opheobatrachus lineolus* Cope, l. c., 1869, p. 101.

Orizaba, *Sumichrast*.

### **Edipus Tschudi.**

1838, Gray; Cope, Proc. Acad. Nat. Sci. Phila., 1869, p. 102; *Geotriton pars* Cope, Proc. Acad. Phila., 1860, p. 373.

**EDIPUS JUCATANICUS** Boulenger; *Spelerpes yucatanicus* Boulenger, Catal. Batr. Grad. Brit. Mus., p. 72, 1883.

Yucatan, *Boulenger*.

**EDIPUS VARIEGATUS** Gray; Catal. Batr. Grad. Brit. Mus., 1850, p. 48; *Salamandra variegata* Gray, Griffith's Animal Kingdom, ix, p. 107; *Bolitoglossa mexicana* part Dum., Bibr. Erpétologie Générale, ix, 1854, p. 93; *Edipus carbonarius* Cope, Proc. Acad. Phila., 1869, 103; *Geotriton carbonarius* Cope, loc. cit., 1860, p. 373. *Spelerpes atitlanensis et mulleri* Brocchi, Miss. Sci. Mexique, p. 118, pl. xix, xx; *S. variegatus* Boul., Cat. Bat. Grad. B. M., 73.

Vera Cruz, *Sartorius*; Orizaba, *Sumichrast*; Jalapa, *Montes de Oca*; Tehuantepec, *Sumichrast*.

Subspecies *SALVINI* Gray, Annals and Mag. Nat. Hist., 1868, p. 297.

Guatemala, *Salvin*, *Hague*; Tehuantepec, *Sumichrast*.

**EDIPUS RUFESCENS** Cope, Proc. Acad. Phila., 1869, p. 104; Boulenger, Catal. Batr. Grad. Brit. Mus., p. 71; *Spelerpes (Edipus) lignicolor* Peters Monatsb. Ak. Berl. 1873, p. 16.

Orizaba and Cordova, Vera Cruz, *Sumichrast*.

**EDIPUS MORIO** Cope, Proc. Acad. Phila., 1860, p. 103; *Geotriton carbonarius* black variety, Cope, l. c., 1868, p. 313. *Spelerpes morio* Boulenger, Catal. Bat. Grad. Brit. Mus. 1883, p. 70.

Guatemala, *van Patten*; ? E. Costa Rica, *Gabb*; Plateau of Costa Rica, *Zeledon*.

### **Spelerpes Raf.**

Baird emend., Journ. Acad. Phila., 1847; Cope, Proc. Acad. Phila., 1869, p. 104; *Pseudotriton* Tsch., Baird, Hallow.

**SPELERPES CHIROPTERUS** Cope, Proc. Acad. Phila., 1863, p. 54; *S. orculus* Cope, loc. cit., 1865, p. 196.

*Hab.*—Mirador, near Vera Cruz, *Sartorius*; Orizaba, alpine zone, *Sumichrast*.

**SPELERPES CEPHALICUS** Cope, loc. cit., 1865, p. 196; Boulenger, Catal. Batr. Grad. Brit. Mus., p. 68; Brocchi, Mission Scientif. Mex., plate xix, f. 1-2.

Vera Cruz, alpine zone, *Sumichrast*.

**SPELERPES BELLII** Gray, Catal. Brit. Mus., 1846; Cope, Proc. Acad. Phila., 1860, p. 372; l. c., 1869, 104; *Edipus platydactylus* "Tsch." Baird, Journ. Acad. Phila., 1847, 282-6; *Bolitoglossa mexicana* Duméril et Bibron, Erp. Gén., ix, p. 93, 1854, pl. civ, fig. 2 (exclus. synon.).

Vera Cruz, *Sumichrast*; Jalapa, *De Oca*; between Chihuahua and the city of Mexico, *Potts*; Guanajuato, *Dugès*; Zacualtipan *Bernad*.

Plethodon Tsch.

PLETHODON CROCEATER Cope, Proceeds. Acad. Phila., 1857, p. 210.  
Lower California, *Xantus, Fisher.*

DESMOGNATHIDÆ.

Thorius Cope.

Proc. Acad. Phila., 1869, p. 111.

THORIUS PENNATULUS Cope, l. c., 111; American Naturalist, 1869, p. 222; Boulenger, Catal. Batr. Grad. Brit. Mus., p. 79.  
Orizaba, Mexico, *F. Semichrast, E. D. Cope.*

CÆCILIIDÆ.

Gymnopis Peters.

Monatsberichte Akad. Wiss. Berlin, 1879, 930, 938.

GYMNOPIIS OLIGOZONA Cope, Proc. Amer. Philos. Soc., 1885, p. 171; *Siphonops oligozonus* Cope, Proc. Amer. Philos. Soc., 1877, p. 91.

Habitat uncertain.

GYMNOPIIS SIMA Cope; *Siphonops simus*, Cope, Proc. Amer. Philos. Soc., 1877, p. 91.  
Costa Rica, exact locality uncertain, *Von Fransus.*

GYMNOPIIS MULTIPLICATA Peters, Monatsber., l. c., p. 939; *Siphonops multiplicatus* Peters, l. c., 1874, 616.

Veragua, *Peters.*

GYMNOPIIS PROXIMA Cope, Proc. Amer. Philos. Soc., 1885, p. 171; *Siphonops proximus* Cope, Proc. Amer. Philos. Soc., 1877, p. 90; *S. mexicanus* Cope, Journ. Acad. Nat. Sci. Phila., 1875, p. 96.

Coast of Eastern Costa Rica, *Gabb.*

Dermophis Peters.

Monatsberichte Akad. Wiss. Berlin, 1879, p. 937.

DERMOPHIS MEXICANUS Dum. Bibr., Peters Monatsber, loc. cit.; *Siphonops mexicanus* Dum. Bibr. Erp. Gen., viii, 284.  
Tehuantepec, *Semichrast*; Tobasco, *Laszlo.*

? DERMOPHIS SYNTREMUS Cope, Proc. Amer. Philos. Soc., 1885, p. 171; *Siphonops syntremus* Cope, Proc. Acad. Phila., 1866, p. 129.  
Honduras, *Parsons.*

Herpele Peters.

Monatsber. Akad., Berlin, 1879, p. 939.

HERPELE OCHROCEPHALA Cope, Proc. Amer. Philos. Soc., 1885, p. 171. *Cæcilia ochrocephala* Cope, Proc. Acad. Phila., 1866, p. 132; Journ. Acad. Phil., 1875, p. 155.  
Brocchi, Mission Scientif. Mex., plate xxi.

Panama, *Gallae*; Panama, Atlantic side, *Bransford.*

Cæcilia Linn.

Wagler, System d. Amphibien, 1830.

CÆCILIA Isthmica Cope, Proc. Amer. Philos. Soc., 1877, p. 91; Boulenger, Catal. Batr. Grad. Brit. Mus., p. 94.  
East side of the Isthmus of Darien, *Selfridge.*

## ANURA.

## ARCIFERA.

## BUFONIDÆ.

## Engystomops Espada.

Ann. Soc. Espan., i, 1872, p. 86; *Paludicola* "Wagl." Cope nec Wagleri, Proc. Acad. Phila., 1884, 180; *Microphryne* Peters, Monatsber. Berlin Akad., 1873, p. 616; *Per-alaimos* Espada, Viaj. Pac. Vert., p. 163, teste Boulenger.

ENGYSTOMOPS PUSTULOSUS Cope; Boulenger, Catal. Batr. Sal. Brit. Mus., 1882, p. 275; *Paludicola pustulosa* Cope, Proc. Acad. Phila., 1864, p. 180; *Microphryne pustulosa* Peters; Cope, Journ. Acad. Phila., 1875, p. 155.

Buchio Soldado, Panama, *Bransford*; Tehuantepec, *Sumichrast*.

## Bufo Laurenti.

*Rhebo*, *Bufo*, *Inciulus*, *Chilophryne*, Cope.

BUFO PLEUROPTERUS Schmidt, Denkschriften Wiener Akad. Wiss., 1858, p. 252, pl. ii, figs. 17-19; Cope, Journ. Acad. Phila., 1825, p. 155.

Buchio Soldado, Panama, *Bransford*; Veragua, *Warcewicz*.

BUFO HÆMATITICUS Cope, Proc. Acad. Phila., 1862, p. 157; Journ. Acad. Phila., 1875, p. 155; et var. *lachrymans*, l. c.; *Rhebo hematiticus*, l. c., 1863, p. 49.

Talamanca, Costa Rica, *Gabb*; Mary Caretta, Panama, *Bransford*; Coban, Vera Paz, *Salvin*; West coast of Central America; Nicaragua, *Bransford*.

BUFO POLITUS Cope, Proc. Acad. Phila., 1862, p. 158; Boulenger, Catal. Batr. Grad. Brit. Mus., 1882, p. 292.

Graytown, Nicaragua, *Caldwell*.

BUFO COMPACTILIS Weigmann, Isis, 1833, p. 661; *Bufo speciosus* Girard, Proc. Acad. Phila., 1854, p. 86; Baird, U. S. & Mexican Boundary Survey, 2C, pl. xl, figs. 5-10; *Bufo anomalus* Günther, Catal. Batr. Sal. Brit. Mus., p. 57, 1858; *Bufo levifrons* Brocchi, Bull. Soc. Philomathique, Paris, 1877, p. 187; *Dromoplectrus anomalus* Camerano.

Valley of Mexico (*J. Potts*) to Rio Grande; Guanajuato, *Dugés*; Pueblo, *Comision Geográfica*.

BUFO MONKSIAE Cope, Proc. Amer. Philos. Soc., 1879, p. 263; Boulenger, Catal. Batr. Grad. Brit. Mus., 1882, p. 292.

Guanajuato, *Dugés*.

BUFO DEBILIS Girard, Proc. Acad. Phila., 1854, p. 87.

Chihuahua and Sonora, *Baird*: Mazatlan, *Bischoff*; Tamaulipas, *Baird*.

BUFO PUNCTATUS Bd. and Girard, Proc. Acad. Phila., 1852, p. 172.

Chihuahua River and tributaries, *J. Potts*; Guanajuato, *Dugés*; Lower California, *Xantus*.

BUFO INTERMEDIUS Günther, Catal. Batr. Sal. Brit. Mus., 1858, p. 140, pl. 18, fig. A. Orizaba, *Sumichrast*; Guanajuato, *Dugés*; Matamoras, Pueblo, *Comision Geográfica*.

BUFO ARGILLACEUS Cope, Proc. Phila. Acad., 1868, p. 138.

Colima, *J. Xantus*.

BUFO MARINUS Linn.; Boulenger, Cat. Bat. Sal. Brit. Mus., 1882, p. 315; *Rana marina* Linn.; *Bufo agua* Latreille et anctorum; *Bufo horribilis* Wiegmann, 1833, p. 654. Panama, *Bransford*; Costa Rica, *Gabb*; Nicaragua, *Bransford*; Tehuantepec, *Sumichrast*; Yucatan, *Schott*; Peten, *Berendt*; Cordova and Orizaba, *Sumichrast*; Colima, *Xantus*; Coatzacoalcos R. *Streets*; Belize, *Brocchi*; Cozumel Id., *Ridgway*.

BATRACHIANS AND REPTILES, CENTRAL AMERICA AND MEXICO. 11

**BUFO STERNOSIGNATUS** Günther, Catal. Batr. Sal. Brit. Mus., 1858, p. 68; Cope, Journ. Acad. Phila., 1875, p. 101.

Tehuantepec, *Sumichrast*; Costa Rica, *Keferstein*; Coatzacoalcos R., *Streets*.

**BUFO CANALIFERUS** Cope, Proc. Amer. Phil. Soc., 1877, p. 85.

Tuchitan, Tehuantepec, *Sumichrast*.

**BUFO VERAGUENSIS** Schmidt, Deukschr. Weinen. Akad. Wiss., 1858, 253, pl. xx, f. 20; iii, f. 21; Günther, Catal. Brit. Mus., p. 142.

Veragua, *Warczewicz*.

**BUFO COCCIFER** Cope, Proc. Acad. Phila., 1866, p. 130; Journ. Acad. Phila., 1875, p. 100, pl. xxiii, fig. 5.

Costa Rica, *Riotte*; Tuchitan Tehuantepec, *Sumichrast*; City of Guatemala, *Van Patten*.

**BUFO VALLICEPS** Weigman, Isis, 1833, p. 657; *Bufo granulosus* Baird & Girard, Proc. Acad. Phila., 1852, p. 173; *B. nebulifer* Girard, loc. cit., 1854, p. 87; U. S. & Mex. Boundary Survey, ii, p. 25, pl. xl, figs. 1-4.

Costa Rica, *Gabb*; Nicaragua, *Bransford*; Tehuantepec, *Sumichrast*; Tamaulipas, *Baird*; Vera Paz, *Brocchi*; Puebla, *Comision Geográfica*.

**BUFO MELANOCHLORUS** Cope, Proc. Amer. Phil. Soc., 1877, p. 85; *B. vallicepos* var. Cope, Journ. Acad. Phila., 1865, p. 100.

E. Costa Rica, *Gabb*.

**BUFO AURITUS** Cope, Journ. Acad. Phila., 1875, p. 99.

Talamanca, Costa Rica, *Gabb*; West coast Central America.

**BUFO CRISTATUS** Weigman, Isis, 1833, p. 660.

Xalapa, *Montes de Oca*; Orizaba and Vera Cruz, *Sumichrast*.

**BUFO BOUCOURTI** Brocchi, Bulletin de la Société Philomathique de Paris, 7 (1), p. 186. Totonicapan *Bocourt*.

**Ollotis** Cope.

Journ. Acad. Phila., 1875, p. 98.

**OLLOTIS CÆRULESCENS** Cope, l. c., 1875, p. 98.

From 3,000 to 5,000 feet elevation on Pico Blanco, Talamanca, Costa Rica, *Gabb*.

**Crepidius** Cope.

Journ. Acad. Phila., 1875, p. 97.

**CREPIDIUS EPIOTICUS** Cope, l. c., pl. xxiii, fig. 2.

From 5,000 feet elevation on Pico Blanco; Salamanca, Costa Rica, *Gabb*.

**Cranopsis** Cope.

Journ. Acad. Phila., 1875, p. 96.

**CRANOPSIS FASTIDIOSUS** Cope., l. c., 96, pl. xxiii, fig. 1.

From 2,500 feet elevation on the slope of Pico Blanco, in the district of Talamanca, Costa Rica, *Gabb*.

**RHINOPHYNIDÆ.**

**Rhinophryns** Dum. Bibr.

Erpétologie Générale, viii, p. 757; Günther, Catal. Batr. Sal. Brit. Mus., p. 127.

**RHINOPHYNUS DORSALIS** Dum. Bibr., l. c., p. 758, pl. xci, figs. 2-2a; *R. rostratus* Brocchi, Bull. Soc. Philomath. Paris, i, p. 196; Miss. Sci. Mexique, Batr., pl. ix, fig. 1. Tehuantepec, *Sumichrast*; Peten, *Berendt*; Tabasco, *Lazlo*; Tuxpan, *Linoecum*.

## SCAPHIOPIDÆ.

**Scaphiopus** Holbr.

**SCAPHIOPUS COUCHII** Baird; subspecies *VARIUS* Cope, Proc. Acad. Phila., 1863, p. 52.  
Cape St. Lucas, Lower California, *Xantus*.

**SCAPHIOPUS MULTPLICATUS**, Proc. Acad. Phila., 1863, p. 51; *Spea multiplicata* Cope, Journ. Acad. Phila., 1866, p. 81.  
*Hab.*—Valley of Mexico, *Potts*.

**SCAPHIOPUS HAMMONDII** Baird, U. S. Pacific R. R. Surv.; Williamson's Report, 12; Cope, Proc. Acad. Phila., 1863, p. 53; *Spea hammondii* Cope, Journ. Acad. Phila., 1866, p. 81; *Spea stagnalis* Cope (Young), Report of G. G. Exped. and Survs. west of 100th Mer., G. M. Wheeler, v, p. 525, pl. xxv, figs. 6, 7, 8; *Scaphiopus dugési* Brocchi, Bull. Soc. Philomath. Paris, 1879, p. 3; Mission Sci. au Mexique, p. 94, pl. ix, fig. 4.  
Chihuahua, *Potts*; Guanajuato, *Dugés*.

## HYLIDÆ.

**Triprion** Cope.

Journ. Acad. Phila., 1866, p. 85. *Pharyngodon* Cope, Proc. Acad. Nat. Sci. Phila., 1865, p. 193 (preoccupied).

**TRIPRION PETASATUS** Cope, Proc. Acad. Phila., 1866, p. 127; *Pharyngodon petasatus*, loc. cit., 1865, p. 193.  
Yucatan, *Schott*.

**Diaglena** Cope gen. nov.

Agrees with *Triprion* in most respects (teste Günther), but differs in having a transverse instead of a vertical pupil.

**DIAGLENA SPATULATA** Günther; *Triprion spatulatus* Günther, Ann. Mag. Nat. Hist., 1882, p. 279.

Presidio, West Mexico.

**Pternohyla** Boulenger.

Annals Mag. Nat. Hist., 1882, p. 326.

**PTERNOHYLA PODIENS** Boul., l. c.

Presidio, West Mexico.

**Scytopis** Cope.

Proc. Acad. Phila., 1862, p. 354; Journ. Acad. Phila., 1866, p. 85.

**SCYTOPIS VENULOSUS** Laurenti; *Rana venulosa* Laur.; *S. hebes* Cope, l. c., 1862, 354; *Aerodytes venulosa* Cope, Nat. Hist. Review, 1855, p. 109; *Rana venulosa* Laurenti, Synopsis Report, 1798, 31; *Hyla venulosa* Daudin, Hist. Rept., viii, 74, Rainettes, p. 35, pl. xiii; Dum. Bibr., viii, 560; Günther, Catal. B. M., 104; *Hypiboas venulosa* Wagler; *Calamita boans* Schneid., Hist. Amphib., 164; *Hyla sonalis* et *bufonia* Spix, t. 12, figs. 1-2.

Guatemala, *H. Berendt*, Nicaragua, *MacNeil*.

**SCYTOPIS BOULENGERI** Cope sp. nov.

Fingers free; heel extending beyond end of muzzle; skin slightly tubercular above. Head oval, with subacuminate muzzle, and nostrils pierced in the side of the elevated extremity; canthus rostralis and lorea concave. Eye prominent, size moderate; its diameter twice that of tympanic membrane, and equal interorbital width,

and the length from its anterior border to the nostril. Internal nares longitudinal; vomerine teeth between them in two transverse fasciculi, which together form a series which is convex backwards. *Ostia pharyngea* half the size of choanae. Tongue oval. Heel reaching a little beyond end of muzzle. Web short, extending to middle of antepenultimate phalange of fourth digit; none between first and second digits. Fingers free; the first opposing the second, which is longer and equal to the fourth (fifth). Palettes on all digits transversely oval. Skin nearly smooth, but with numerous small warts on the top of the head and the scapular and interscapular regions. Abdomen and sides finely areolate; throat and limbs smooth.

The color above is light gray, with dark gray markings as follows: A wide band descending downwards and forwards from eye; a wide band from eye above tympanum to behind the scapula; a cross-band on the sacrum, and one across the middles of the ilia. These marks are all quite indistinct. Similar cross-bands on exposed surfaces of limbs; six on femur, four on tibia, and five on digit of posterior foot. Concealed surfaces of femur and tibia light (? red or yellow) with purplish black cross-bands; three on front and back of femur, and four on under side of tibia. Several small spots of the same in the groin. Fore legs, throat, and belly immaculate.

Length head and body, 37<sup>mm</sup>; length to tympanum, inclusive, 14<sup>mm</sup>; the hind leg, 63<sup>mm</sup>; the hind foot, 25<sup>mm</sup>.

Nicaragua, MacNeil; No. 13974 Nat. Museum. Dedicated to the distinguished zoologist, Dr. G. A. Boulenger.

#### Smilisca Cope.

Proc. Acad. Phila., 1865, 194; Journ. Acad. Phila., 1866, p. 85.

**SMILISCA BAUDINII** Dum. Bibr., *Hyla baudinii* Duméril et Bibron, Erp. Gén., viii, 564; Günther, Catal. Brit. Mus., 105; Cope, Proc. Acad. Phila., 1863; *Hyla vanvlietti* Baird, Proc. Acad. Nat. Sci. Phila., 1854, p. 60; U. S. & Mex. Bound. Surv., t. xxxviii, figs. 1-3; *Hyla vooiferans* Baird, U. S. & Mex. Bound. Surv., t. xxxviii, 11, 12, 13 (no description); *Hyla muricolor* Cope, l. c., 1862, p. 359; *Smilisca daulinia* Cope, l. c., 1865, p. 194 (skeleton).

High Valley of San José, Costa Rica, *Van Patten*; Guatemala, *Hague*; Peten, *Berendt*; Tehuantepec, *Sumichrast*; Guadalaxara, *Major*; Cordova and Orizaba, Vera Cruz, *Sumichrast*; Mirador, *Sartorius*; Rio Grande del Norte, *Van Vliet*.

#### Hypsiboas Wagler.

Cope emend. Journ. Acad. Phila., 1867, p. 200; *Plectrohyla* Brocchi, Bull. Soc. Philomath. Paris, 7 (i), p. 92; *Cauphias* Brocchi, l. c., p. 129.

**HYPYSIBOAS MILIARIUS** Cope, Proc. Amer. Philos. Soc., 1886, p. 272.  
Nicaragua, *Bransford*.

**HYPYSIBOAS XEROPHYLLUM** Dum. Bibr. Erp. Gén., viii, 549. (*Hyla*) var.  
Nicaragua, *Bransford*.

**HYPYSIBOAS ALBOMARGINATUS** Spix, Cope, Proc. Amer. Philos. Soc., 1886.  
Nicaragua, *Bransford*.

**HYPYSIBOAS CREPITANS** Wied, Wagler, Syst. Amphib., 1830, p. 200; *Hyla crepitans* Wied. Beiträge zur Naturgesche, Brag, 525; Boulenger, Catal. Batr. Grad. Brit. Mus. 1882, 352; *Hyla palmata, doumersei et levaillanti* Dum. Bibr., Erp. Générale, viii, p. 545-550; *Hyla pugnax* Schmidt, Denkschr. Wiener Akademie, 1858, 243, pl. ii, figs. 5-6.

Chiriquí River, *Warczewicz*.

**HYPYSIBOAS GUATEMALENSIS** Brocchi; *Plectrohyla guatemalensis* Brocchi, Bull. Soc. Philomathique Paris, 7 (1), p. 92; *Cauphias guatemalensis* Brocchi, l. c., p. 129. Guatemala, *Brocchi*.

? *HYPSIBOAS CRASSUS* Brocchi; *Cauphias guatemalensis* Brocchi, Bull. Soc. Philomathique Paris, 7 (1), p. 130.  
"Mexico," Brocchi.

*Hyla Laurenti.*

Dum. Bibr., viii, 542, etc.; Cope, emend., Journ. Acad. Phila., 1865, p. 103.

**HYLA GABBI** Cope, Journ. Acad. Phila., 1875, p. 103.  
E. Costa Rica, *Gabb.*

**HYLA NIGRIPES** Cope, Journ. Acad. Phila., 1875, p. 104, pl. xxiii, fig. 7.  
E. Costa Rica, *Gabb.*

**HYLA URANOCHROA** Cope, Journ. Acad. Phila., 1875, p. 103, pl. xxvii, fig. 4.  
E. Costa Rica, *Gabb.*

**HYLA MIOTYMPANUM** Cope, Proc. Acad. Phila., 1863, p. 47; *H. microtis* Peters, Monatsberichte k. k. Akad. Berlin, 1869, p. 880.  
Mirador, Vera Cruz, *Sartorius*; Vera Cruz, *Sumichrast*; Jalapa, *Montes de Oca*; Puebla, *Berkenbusch*; Tehuantepec, *Sumichrast*; Zacualtipan, *Cope*.

**HYLA EBRACCATA** Cope, Proc. Acad. Phila., 1874, p. 69.  
Nicaragua, *Bransford*.

**HYLA ARENICOLOR** Cope, Journ. Acad. Phila., 1866, p. 84; *H. affinis* Baird (not Spix); Proc. Acad. Phila., 1854, p. 61; U. S. & Mex. Bound. Survey, ii, p. 29, pl. xxxiii, figs. 4-7.  
Guanajuato, *Dugés*. Between city of Mexico and Chihuahua, *Potts*; valleys of Mexico or Toluca, *Hoege*.  
According to Dugés, the voice of this species is like that of a goat. It is, therefore, very different from that of its relative, the *H. versicolor* of the United States.

**HYLA BISTINCTA** Cope, Proc. Amer. Philos. Soc., 1877.  
Vera Cruz, ? *Sumichrast*; Zacualtipan, *Bernad.*

**HYLA NIGROPUNCTATA** Boulenger, Catal. Batr. Sal. Brit. Mus., 1882, p. 366.  
"Jalapa, *Hoege*; Cordova, *Salá*"; Puebla, *Comision Geográfica*.

**HYLA ELEOCHROA** Cope, Journ. Acad. Phila., 1875, p. 105, pl. xxvi, fig. 3.  
E. Costa Rica, *Gabb*; Panama, Pacific side, *Bransford*.

**HYLA QUINQUEVITTATA** Cope, Proc. Amer. Philos. Soc., 1886, p. 273.  
Nicaragua, *Bransford*.

**HYLA EXIMIA** Baird, Proc. Acad. Phila., vii, 1854, 61; U. S. & Mex. Bound. Survey, ii, 29, pl. xxxviii, figs. 8-10; *Hyla euphorbiacea* Günther, Catal. Batr. Sal. Brit. Mus., 1858, p. 109, pl. x, fig. 6.  
Plateau of Mexico, *Rich*, *Sumichrast*; between Mexico and Chihuahua, *Potts*; Guanajuato, *Dugés*.  
Subspecies *STAUFFERII* Cope, Proc. Acad. Phila., 1865, p. 195.  
Orizaba, *Sumichrast*; Peters, *Berendt*; Guatemala, *Hague*; Guanajuato, *Dugés*.  
This form somewhat resembles the *Chorophilus triseriatus clarkii*.

**HYLA GRACILIPES** Cope, Proc. Acad. Nat. Sci. Phila., 1865, p. 174.  
Table-land of Mexico, *Sumichrast*; Puebla, *Comision Geográfica*.

**HYLA SPLENDENS** Schmidt, Denkschriften der Wiener Akademie, 1858, p. 244, pl. i, fig. 7.  
"Central America," *Schmidt*.

**HYLA PUMA** Cope, Proc. Amer. Philos. Soc., 1884, p. 183.  
Nicaragua, *Moser*.

**HYLA MOLITOR** Schmidt, Denkschriften der k. k. Wiener Akademie, 1858, p. 245, pl. i, figs. 8-9.  
"Central America," *Schmidt*.

**HYLA MICROCEPHALA** Cope, Proc. Amer. Philos. Soc., 1866, p. 281.  
Chiriquí, *National Museum Label*; (? MacNeil.)

**HYLA PUNCTARIOLA** Peters, Monatsberichte k. preuss. Acad. Wiss., 1863, p. 462; Cope, Journ. Acad. Phila., 1875, p. 106 (from Bogota).

Subspecies **PICTIPES** Cope, Journ. Acad. Phila., 1875, p. 106.

E. Costa Rica, *Gabb.*

Subspecies **MONTICOLA** Cope, l. c.

E. Costa Rica, *Gabb.*

Subspecies **MOESTA** Cope, l. c.

E. Costa Rica, *Gabb.*

**HYLA SPILOMMA** Cope, Proc. Amer. Philos. Soc., 1877, p. 86.

Cosamaloapan, Vera Cruz, *Sumichrast.*

**HYLA CURTA** Cope, Proc. Acad. Phila., 1866, p. 313.

Cape St. Lucas, *Xantus.*

**Hylella** Reinh. & Lütk.

Vidensk. Meddel. Kjöbenhavn, 1861, p. 199.

**HYLELLA PLATYCEPHALA** Cope, Proc. Amer. Philos. Soc., 1879, p. 267, *H. sumichrasti* Boulenger, Cat. Batr. Sal. Brit. Mus., 1882, p. 420; *Exerodonta sumichrasti*, Brocchi, Bull. Soc. Philom., Paris, 7 (iii), p. 20.

W. Tehuantepec, *Sumichrast*, 2,500 feet.

**Agalychnis** Cope.

Natural History Review, London, 1865, p. 110; Proc. Acad. Phila., 1865, p. 194; Journ. Acad. Phila., 1866, p. 86.

**AGALYCHNIS MORELETII** Dum., *Hyla moreletii* A. Dum., Ann. des Sci. Nat., 1854, p. 169; *Hyla holochlora* Salvin, Proc. Zool. Soc. London, 18; *Agalychnis moreletii* Cope, Nat. Hist. Rev., l. c.; Journ. Acad. Phila., 1875, p. 107.

Vera Paz, Guatemala, *Morelet*, *Salvin*, *Hague*; Costa Rica, *Riötte*, *Van Patten*.

**AGALYCHNIS CALLIDRYAS** Cope, Nat. Hist. Rev., l. c.; *Hyla callidryas* Cope, Proc. Acad. Phila., 1862, p. 359.

Near Cordova, Vera Cruz, *Sumichrast*; Panama, *Field*, *Dr. Thonberg*; (Mus. Comp. Zoology, Cambridge).

**AGALYCHNIS HELENÆ** Cope, Proc. Amer. Philos. Soc., 1884, p. 182; 1886, p. 274.

Nicaragua, *Moser*, *Bransford*.

**AGALYCHNIS LEMUR** Boulenger; *Phylomedusa lemur* Boulenger, Catal. Batr. Sal. Brit. Mus., 1882, p. 425.

Costa Rica, *Boulenger*.

**AGALYCHNIS DACNICOLOR** Cope, Journ. Acad. Phila., 1866, p. 86; *Phylomedusa dacnicolor* Cope, Proc. Acad. Phila., 1864, p. 181; Boulenger, Ann. Mag. Nat. Hist., 1862, 328.

Colima *Xantus*; Mazatlan, *Bischoff*; San Blas, *Boulenger*.

**CYSTIGNATHIDÆ.**

**Hylodes** Fitzinger.

Cope emend., Proc. Acad. Phila., 1861, p. 153; Journ. Acad. Phila., 1866, p. 96.

**HYLODES POLYPTYCHUS** Cope, Proc. Amer. Philos. Soc., 1866, p. 276.

Nicaragua, *Bransford*.

**HYLODES CERASINUS** Cope, Journ. Acad. Phila., 1875, p. 112, pl. xxvi, fig. 4.

Eastern slope of Pico Blanco, Costa Rica, *Gabb.*

*Lithodytes* Cope.

Nat. Hist. Review, London, 1865; Journ. Acad. Phila., 1866, p. 96; *Lithodytes, Enhyas*, and *Batrachyla* (Bell) Cope, Proc. Acad. Phila., 1862, p. 165; *Craugastor* Cope, loc. cit., 1861, p. 153; *Liyla* Keferstein, K. Gesellsch. Wiss. Goettingen, 1867; Archiv f. Naturgesch., 1868, p. 926.

**LITHODYTES DIASTEMA** Cope, Journ. Acad. Phila., 1875, p. 155.

Mary Caretta, Panama, *Branford*; Nicaragua, *Branford*.

**LITHODYTES BRANSFORDII** Cope, Proc. Amer. Philos. Soc., 1886, p. 274.

Nicaragua, *Branford*.

**LITHODYTES RANOIDES** Cope, Proc. Amer. Phil. Soc., 1886, p. 275.

Nicaragua, *Branford*.

**LITHODYTES PODICIFERUS** Cope, Journ. Acad. Phila., 1875, p. 107, pl. xxiii, fig. 9.

E. Costa Rica, *Gabb*.

**LITHODYTES MURICINUS** Cope, loc. cit., 1875, p. 103.

Subspecies *MURICINUS*.

Costa Rica, *Gabb*.

Subspecies *HABENATUS* Cope; *Lithodytes habenatus* Cope, loc. cit., p. 110.

Pico Blanco, Costa Rica, *Gabb*.

**LITHODYTES RHODOPIS** Cope, Proc. Acad. Phila., 1866, p. 323; *Hylodes sallaci* Günther, Proc. Zool. Soc. Lond., 1868, p. 487, pl. xxxviii, f. 3.

Orizaba and Cordova, Vera Cruz, and Tehuantepec, *Sumichrast*; Guatemala, *Hague*; Pueblo and Jalapa, *Comision Geográfica*.

**LITHODYTES AUGUSTI** Dugés, Brocchi, Bull. Soc. Philomathique, Paris, 7 (iii), p. 21; Mission Sci. au Mexique, Batr., p. 52, pl. xvi, f. 1.

Guanajuato, *Dugés*.

**LITHODYTES LANCIFORMIS** Cope, Proc. Amer. Philos. Soc., 1877, p. 88.

From the west coast of Central America, without more specific locality.

**LITHODYTES MELANOSTICTUS** Cope, Journ. Acad. Phila., 1875, p. 109, pl. xxiii, fig. 10; Batr. & Rept., Costa Rica, 1875, p. 109, pl. xxiii, fig. 10.

E. Costa Rica, from 7,000 feet elevation on the Pico Blanco, *Gabb*.

**LITHODYTES PELVICULUS** Cope, Proc. Amer. Philos. Soc., 1877, p. 89.

West coast of Central America, without more special designation of locality.

**LITHODYTES MEGACEPHALUS** Cope, Journ. Acad. Phila., 1875, p. 109, pl. xxiii, fig. 11.

Six thousand feet elevation on Pico Blanco, *Gabb*.

**LITHODYTES GULOSUS** Cope, Journ. Acad. Phila., 1875, p. 112.

Six thousand feet elevation on Pico Blanco, E. Costa Rica, *Gabb*.

**LITHODYTES GRISEUS** Hallowell, Cope, Proc. Acad. Phila., 1863, p. 48; *Hyta grisea* Hallow., Proc. Acad. Phila., 1860, p. 485. *Hylodes griseus* Steindachner, K. K. Bot.-Zool. Ges. Wien, 1864, p. 245; *H. fenestratus* Steind., l. c., 249, tab. xvii, xviii? Nicaragua, *Stimpson*, ? Orizaba, *Cope*.

**LITHODYTES BERKENBUSCHII** Peters, (*Hylodes*) Monatsber. Berl. Acad., 1869, p. 879. Middle Mexico, *Berkenbusch*.

**LITHOYDTES GUENTHERII** Keferstein, *Liyla guentherii* Keferst., Archiv f. Naturgesch., 1886, p. 926; *Liyla rugulosa* Cope, Proc. Amer. Philos. Soc., 1869, p. 160, teste Boulenger; *Hylodes rugosus* Brocchi, Miss. Sci. Mex.; *H. palmatus* Boul., Catal. Bat. Sal. Brit. Mus.

Costa Rica, *Seebach*; West Tehuantepec, *Sumichrast*.

*Epirhexis* Cope.

Journ. Acad. Phila., 1866, p. 96.

**EPIRHEXIS LONGIPES** Baird, *Batrachyla longipes* Baird, U. S. & Mex. Bound. Surv., T. 37 f., 1-3; no description.

Mexico, Sp. 3207 from 40 leagues north of City of Mexico.

EPIRHEXIS LATICEPS Dum., *Hylobates laticeps*, A. Duméril, Catal. Méth. Rept. du Muséum, p. 178; Erpétologie Générale, pl. xcix.  
Yucatan, Morelet.

**Hypodictyon** Cope.

Proc. Amer. Philos. Soc., 1835, p. 383.

**HYPODICTYON RIDENS** Cope, loc. cit.; *Phyllobates ridens* Cope, Proc. Acad. Phila., 1866, p. 131; Journ. Acad. Phila., 1875, p. 155.  
San Juan R. Nicaragua, *Kennicott*; Panama, *Bransford*.

**Phyllobates** Bibron.

De la Sagra's Hist. Cuba, Reptiles; Dum. Bibr., Erp. Gén., viii, 637.

**PHYLLOBATES HYLAEFORMIS** Cope, Journ. Acad. Phila., 1875, p. 107; pl. xxiii, fig. 8.  
Pico Blanco, at 7,000 feet elevation, Talamanca E. Costa Rica, *Gabb*.

**Syrrophorus** Cope.

American Naturalist, 1878, 253.

**SYRRHOPHUS VERRUCIPES** Cope, Proc. Amer. Philos. Soc., 1885, p. 383.  
Near Zacualtipan, Hidalgo, *Cope*.

**SYRRHOPHUS LEPRUS** Cope, Proc. Amer. Philos. Soc., 1879, p. 268.  
West Tehuantepec, *Sumichrast*.

**SYRRHOPHUS CYSTIGNATHOIDES** Cope, Proc. Amer. Phil. Soc., 1879, p. 268; *Phyllobates cystignathoides* Cope, l. c., 1877, p. 69.  
Potrero, near Cordova, Vera Cruz, *Sumichrast*.

**Malachylodes** Cope.

Proc. Amer. Philos. Soc., 1879, p. 264.

**MALACHYLODES GUTTILATUS** Cope, loc. cit.  
? Guanajuato *Dugés*.

**Liuperus** Dum. Bibr.

Erp. Générale, viii, p. 420.

**LIUPERUS NITIDUS** Peters, Monatsber. Berlin. Akad., 1869, p. 878.  
Puebla, *Berkenbusch*.

**Leptodactylus** Fins.

Class. Rept., p. 38; Girard, U. S. Wilkes Exploring Exped., Herpetology; Boulenger, Catal. Batr. Sal. B. M., 1882, p. 237; *Cystignathus* Wagler, System der Amphibien, 1830, p. 203; Dum. Bibr., Erp. Gén., viii, p. 392; Günther, Catal. Batr. Sal. Brit., 58, p. 26.

**LEPTODACTYLUS GRACILIS** Dum. Bibr., viii, p. 406; D'Orbigny, Voy. Amér. Mérid., pl. xiii, figs. 5-7; Cope, Proc. Amer. Philos. Soc., 1869, p. 162; *Cystignathus fragilis* Brocchi, Bull. Soc. Philom. Paris (7), p. 182; *Leptodactylus fragilis* Brocchi, Miss. Sci. Mexique., Batr., p. 19, pl. 5, fig. 2.  
Tehuantepec and Vera Cruz, *Sumichrast*.

**LEPTODACTYLUS LABIALIS** Cope, Proc. Amer. Philos. Soc., 1877, p. 90.  
Habitat uncertain; probably a part of Sumichrast's collection.

**LEPTODACTYLUS MICROTIS** Cope; Boulenger, Catal. Batr. Sal. Brit. Mus., 1882, p. 244;  
*Cystignathus microtis* Cope, Proc. Amer. Philos. Soc., 1879, p. 265.  
? Guanajuato, *Dugés*.

**LEPTODACTYLUS PERLAEVIS** Cope; Boulenger, Catal. Batr. Sal. Brit. Mus., 1882, p. 245;  
*Cystignathus perlaevis* Cope, Proc. Amer. Philos. Soc., 1879, p. 269.  
 West Tehuantepec, *Sumichrasti*.

**LEPTODACTYLUS MELANONOTUS** Hallowell, Proc. Acad. Phila., 1860, p. 425; *Cystignathus melanotus* Hallowell, Proc. Acad. Phila., 1860, p. 425; Cope, Proc. Amer. Philos. Soc., 1879, 269.

Costa Rica, *Rioti*; Nicaragua, *Stimpson*; Tehuantepec, *Sumichrast*; Mazatlan, *Biechoff*.

**Cystignathus Wagler.**

Natürl. Syst. der Amphibien, 1830, p. 202; *Gnathophysa* (Fitz.) Cope, Nat. Hist. Review, Lond., 1865, 112; Journ. Acad. Phila., 1866, p. 96.

**CYSTIGNATHUS PENTADACTYLUS** Laur.; Peters, Monatsber. Ak. Wiss. Berlin, 1872, p. 198; Linné; *Rana ocellata* Schneider, Merrem; Gravenhorst Deliciae 42; *Rana pentadactyla* Laurenti, Specimen, 32; *Rana gigas et labyrinthica* Spix, Test. Ran. T.; *Cystignathus labyrinthicus* Dum. Bibr., viii, 407; Guichenot Castelnau, Voyage en Amérique Mérid., *Pleurodema labyrinthicum* Günther, Catal. Brit. Mus., p. 31; *Gnathophysa labyrinthica* Cope, Nat. Hist. Rev., 112.

E. Costa Rica, *Gabb*.

**FIRMISTERNIA.**

**ENGYSTOMIDÆ.**

**Engystoma** Fitzinger.

Dum., Bibron, Erp. Gén., viii, p. 738.

**ENGYSTOMA USTUM** Cope, Proc. Phila. Acad., 1866, p. 131; *Systema ustum* Cope, Journ. Acad. Phila., 1867, 194; *Engystoma mexicanum* Peters, Monatsber. Berlin. Akademie, 1869, p. 881.

Guadalaxara, West Mexico, *I. I. Major*; Vera Cruz, *Sumichrast*; Coatzacoalcos, *R. Streets*; Guanajuato, *Dugés*.

**ENGYSTOMA PICTIVENTRE** Cope, Proc. Amer. Philos. Soc., 1886, p. 272.

Nicaragua, *Bransford*.

**PHRYNISCIDÆ.**

**Hypopachus** Keferstein.

Nachrichten Akad. Göttingen, 1867, 52; Cope, Journ. Acad. Phila., 1875, p. 101.

**HYPOPACHUS VARIOLOSUS** Cope, Proc. Amer. Philos. Soc., 1869, p. 166; *Engystoma variolosum* Cope, Proc. Acad. Phila., 1867, 194, 1866, 131; *Hypopachus Seebachii* Keferst., loc. cit., 352; Archiv für Naturgesch., 1868, p. 293, pl. ix, figs. 1-2.  
 Subspecies *VARIOLOSUS*, Cope.

Costa Rica, *Seebach, Riotte*; Guadalaxara, *Dugés*.

Subspecies *INGUINALIS* Cope; *Hypopachus inguinalis*, Proc. Amer. Philos. Soc., 1869, p. 165.

*Habitat*.—Vera Paz, near the ruins of Coban, *H. Hague*, *O. Salvin*.

**Atelopus** Dum. Bibr.

Erp. Gén., viii, p. 660; *Phrynidium* Martens; Cope, Journ. Acad. Phila., 1867, p. 196.

**ATELOPUS VARIUS** Stannius, Handbuch der Zoötomie, 2 Aufl., Amphib., p. 16; *Phrynidium varium* Martens Nomenclat., Report Mus. Berol., 1856, p. 40; *Phrynicus varius* Günther, Catal. Brit. Mus., 1858, p. 45; *Atelopus varius* Cope, Journ. Acad. Phila., 1875, p. 102.

Costa Rica, *Gabb*.

## DENDROBATIDÆ.

## Dendrobates Wagler.

Natürl. Syst. Amphib., 1830, p. 202; *Hylaplesia* "Boie"; Günther, Catal. Batr. Sal. Brit. Mus., 1858, p. 124 (not of Boie).

DENDROBATES TINTORIUS Wagler; Steindachner, Verhandl. K. K. Zoolog.-Botan. Ges. Wien, 1864, p. 260.

Subspecies AURATUS Girard; *Dendrobates auratus* Girard; U. S. Astron. Exped., ii, p. 209; Steindachner, l. c., pl. xiii, figs. 7-7d; *Phyllobates auratus* Grd., Proc. Acad. Nat. Sci. Phila., vii, 1854, p. 226.

Panama; Costa Rica, Gabb; "West coast Central America;" Nicaragua, Moser, Bransford.

DENDROBATES TRUNCATUS Cope; *Phyllobates truncatus* Cope, Proc. Acad. Phila., 1860, 372; *Hylaplesia truncata* Cope, l. c., 1863, p. 49.

Panama.

DENDROBATES TALAMANCAE Cope, Journ. Acad. Phila., 1875, p. 102, pl. xxiii, fig. 6. Cold Harbor, eastern coast of Costa Rica, Gabb.

DENDROBATES LUGUBRIS Schmidt, Denkschriften Wienen Akad., 1858, p. 250; Günther, Catal. Batr. Sal. Brit. Mus., p. 125. Veragua, Warczewicz.

DENDROBATES TYPOGRAPHUS Keferst., Archiv f. Naturgeschichte, 1868, p. 298, pl. ix, fig. 7; Cope, Journ. Acad. Phila., 1875, p. 102; *Dendrobates ignitus* Cope, Proc. Acad. Phila., 1874, p. 68.

Nicaragua, Bransford, Moser; E. Costa Rica, Gabb; "West coast Central America."

## RANIDÆ.

## Ranula Peters.

Cope emend., Proc. Acad. Phila., 1866, p. 129; *Pohlia* Steindachner, Reise der Oest. Frig. Novara, Amphib., p. 15, 1867; *Tryphoropis* Cope, Proc. Acad. Phila., 1875, p. 114.

RANULA CHRYSOPRASINA Cope, Proc. Acad. Phila., 1866, p. 130; *Tryphoropis chrysoprasina* Cope, loc. cit., p. 117; Journ. Acad. Phila., 1875, pl. xxiii, fig. 12.

E. Costa Rica, Gabb; Costa Rica, Rioite; Ibid, Valley of San José, Van Patten; Nicaragua, Bransford.

RANULA PALMIPES Cope; *Rana palmipes* Spix; *Pohlia palmipes* Steindachner, Novara Exped. Amphib., p. 15; *Ranula gölmeri* et *Rana affinis* Peters, Monatsberichte Berlin. Akad., 1859, p. 402; *Ranula affinis* Cope, Proc. Acad. Phila., 1866, p. 129; *Rana taillantii* Broeche, Bull. Soc. Philomath. Paris (7), i, p. 175; Mit. Sci. Mex., Batr., p. 11, pl. ii, fig. 1.

Guatemala, van Patten, H. Hague; Coban, Salvin; Tehuantepec, Sumichrast.

## Rana Linn.

Laurenti et Dum. Bibr. emend.

RANA HALECINA "Kalm." Dum. Bibr., Erp. Gén., viii, p. 351; Boulenger, Catal. Batr. Sal. Brit. Mus., 1882, p. 41; *Rana berlandieri* Baird, U. S. & Mex. Bound. Survey, 1859, ii, Reptiles, p. 27, pl. xxvi, figs. 7-10; Cope, Check-list Batr. Rept. N. Amer. Subspecies AUSTRICOLA Cope; *Rana lecontei* "B. & G." Günth. Catal. Batr. Sal. Brit. Mus., p. 15; Broeche, Bull. Soc. Philom. Paris (7), i, p. 178, et Miss. Sci. Mex. Batr., p. 14, pl. iv, f. 1; Boulenger, Catal. B. Sal. B. M. 2 ed., p. 42; nec Baird et Girard = *R. draytoni* B. et G.; *Rana halecina* Kalm. var. Cope, Proc. Amer. Philos. Soc., 1879, p. 270.

E. Costa Rica, Gabb; Guatemala, Hague; West coast Central America; Tobasco, Berendt; Jalapa, Montesdeoca; Guanajuato, Dugés.

Subspecies HALECINA Kalm. Cope; *Rana berlandieri* Baird.

Monterey Tamaulipas, Cope; Tehuantepec, Sumichrast.

**RANA MONTEZUMÆ** Baird, Proc. Acad. Phila., 1854, p. 61; U. S. & Mex. Bound. Survey, ii Report, p. 27, pl. xxxvi, figs. 1-6.

Tobasco, Berendt; Tehuantepec, Sumichrast; Guatemala, Hâgue; City of Mexico, Rick, Cope.

Subspecies **CONCOLOR** Cope.

Similar to the typical form, but of a uniform fawn-brown color without the spots of the typical form.

Guanajuato, Dugés.

## REPTILIA.

### CROCODILIA.

#### **Crocodilus** Laurenti.

Specimen exhib. Synopse in Reptilium, 1768, p. 53.

**CROCODILUS AMERICANUS** (Plumier), Schneider, Hist. Amph. fasc. 2, 1801, p. 167; Le Crocodile St. Domingæ, Geoffroy, Ann. Mus. Nat. Hist., 1803, ii, p. 53, pl. xxxvii, fig. 1; Cope, Proc. Amer. Philos. Soc., 1869, p. 161; *Crocodilus acutus* Cuv., Ann. Mus. Nat. Hist., 1807, x, p. 55, pl. i, figs. 3, 14, pl. ii, fig. 2; Geoffroy, Ann. Mus. Nat. Hist., 1807, t. x, p. 67; Cuv. Oss. Foss., 1824, t. v, part 2, p. 55, pl. i, figs. 3, 14, pl. ii, fig. 5; Gray, Synopsis, 1831, p. 60, spec. 8; Dum. et Bibr., Erp. Gén., 1836, t. iii, p. 119; *Crocodilus americanus*, Gray Catal. Tort. Crocod., 1844, p. 60; *Molinia americana* Gray, Synops. Spec. Rec. Crocod., 1862, Trans. Zool. Soc., Lond., 1867, t. vi, p. 151; *C. americanus* Bocourt, Miss. Sci. au Mex., iii, p. 30, pl. viii, figs. 7-7a, pl. ix, fig. 1.

Subspecies **PACIFICUS** Bocourt, Miss. Sci. au Mex., iii, p. 31, pl. ix, figs. 5-5a, 5b. Nagualate, Western Guatemala, Bocourt; Tehuantepec, Sumichrast.

Subspecies **MEXICANUS**, *Crocodilus americanus*, var., Gray, Cat. Tort. Croc. B. M., 1844, p. 60; *Molinia americana*, var., Gray, Synops. Spec. Rec. Croc., 1862, and Trans. Zool. Soc., 1867, t. vi, p. 151; *C. mexicanus* Bocourt, Miss. Sci. au Mex., iii, p. 34, pl. viii, figs. 3-3a.

Tampico, Montluc.

**CROCODILUS MORELETII** A. Dum., Cat. Meth. Coll. Rept. M. P., 1851, p. 28, and Arch. de Mus., 1852, t. vi, p. 146; *Alligator laordairei* Prud. du Borre, Acad. Roy. Belgique (extr. bull., 2d ser., 1869; t. xxviii, No. 7, p. 111); *C. moreletii* Bocourt, Miss. Sci. au Mex., p. 37, iii part, pl. viii, figs. 1-1a, and ix, figs. 2-2a, 2b and 3.

Peten, Flores, Polochic, Guatemala, Morelet.

#### Jacare Gray.

*Cæman* Gray.

**JACARE PUNCTULATA** Spix; *Jacaretinga punctulatus* Spix, Anim. Nov., p. 2, t. 2; *Alligator punctulatus*, Dum. Bibr., i, 91; Günther, Biol. Centr. Amer. Rept., p. 21; *Jacare chiapasianus* Bocourt, Journ. Zool., 1876, p. 400.

Chiapas, Bocourt.

**NOTE.**—The *Alligator mississippiensis* ranges to the mouth of the Rio Grande River, but has not been found beyond it to the southward.

## TESTUDINATA.

## LYSOSTERNA.

## CISTUDINIDÆ.

- *Cistudo* Fleming.

Dum. et Bibr., Erp. Gén., ii, p. 207.

*CISTUDO MEXICANA* Gray; *Onychotria mexicana* Gray, Proc. Zool. Soc., 1849, p. 17, and *Cistudo mexicana*, Catal. Shield, Rept. Brit. Mus., 1855, p. 40; *Cistudo triunguis* Agassiz, Contrib. Nat. Hist. U. S. America, 1857, p. 445.

Tampico, *Bocourt*.

## CLIDOSTERNA.

## EMYDIDÆ.

*Chelopus* Rafinesque.

*Nanemys*, *Calemys*, and *Actinemys* Agassiz.

*CHELOPUS AREOLATUS* A. Dum.; Cope, Proc. Acad. Phila., 1866, p. 123; *Emys areolata* A. Dum., Catal. Meth. Coll. Mus., 1851, p. 10, and Des. Rep. Nov. Imp. Conn. (Arch. Mus., 1852, t. vi, p. 223, pl. xiv).

Peten, *Morelet*; Belize, *Parsons*.

*CHELOPUS PUNCTULARIUS* Daudin; Cope, Proc. Acad. Phila., 1865, 185; *Testudo punctularia* Daud.; *Emys scabra* Bell, Gray, Linn. (fide Agassiz); *Geoclemmys callocephalus* Gray, Proc. Zool. Soc. Lond., 1863, 254; *Rhinoclemmys scabra* Gray, Proc. Zool. Soc. Lond., 722.

Yucatan, *Schott*; Tabasco, *Berendt*.

*CHELOPUS GABBII* Cope, Journ. Acad. Phila., 1875, p. 153.

Costa Rica, *Gabb*.

*CHELOPUS FUNERARIS* Cope, Journ. Acad. Phila., 1875, p. 154.

Costa Rica, *Gabb*.

*CHELOPUS PULCHERRIMUS* Gray; *Emys pulcherrima* Gray, Catal. Shield Rept. B. M., p. 25, t. 25; *Callichelys pulcherrima* Gray, Am. Mag. N. H., 1863, p. 181; *Rhinoclemmys pulcherrima* Gray, Am. Mag. N. H., 1873, p. 145.

W. Mexico Presidio, *Forrer*.

*CHELOPUS INCISUS* Bocourt, Journ. Zool., 1876, p. 387; *Emys incisa*, Boc. Ann. Sci. Nat., 1868, 121; Miss. Sci. Mexique, iii, p. 11, pls. i and ii; *Rhinoclemmys frontalis* Gray, Ann. Mag. Nat. Hist., 1873, xi, p. 144.

Pacific coast of San Salvador; Mount of Conchavona, *Bocourt*.

*CHELOPUS RUBIDUS* Cope, Proc. Am. Philos. Soc., 1869, p. 148; Proc. Acad. Phila., 1869, p. 161; *Rhinoclemmys mexicana* Gray, Proc. Zool. Soc. Lond., 1870, 659-723; Supp. Catal. Shield Rept., p. 30; *Chelopus mexicanus* Boc., Journ. Zool., 1876, 387.

Nicaragua, *MacNiel*; Tehuantepec, *Sumichrast*.

*Pseudemys* Gray.

*Ptychemys* and *Trachemys* Agassiz, Contr. Nat. Hist. U. S.

*PSEUDEMYS ORNATA* Bell; *Callichelys ornata* Gray, Supp. Catal. Shield Rept., p. 48; *Emys venusta* Gray, Catal. Shield Rept., Brit. Mus., 1855, p. 24, tab. xii, a; *Emys venusta* Bocourt, Miss. Sci. Mex., iii, p. 131.

Mazatlan, *Colley*, *Forrer*; Presidio, *Forrer*; Honduras, *Dyson*; Costa Rica, *Gabb*; Panama, *Druce*; Yucatan *Morelet*; Belize, Rio Pioche, *Miss. Scientifique*.

PSEUDEMYS CATASPILA Günther, Biol. Centr. Amer. Zool., Reptiles, p. 4, tab. vi, fig. B; *Emys ornata* Gray, pt., Catal. Zool. R. M., 1854, p. 22; Catal. Shield Rept., 1855, p. 24, fig. 12; *Callichelys ornata*, pt., Gray, Ann. Mag. Nat. Hist., 1863, p. 176. Mexico, ? —.

PSEUDEMYS UMBRA Bocourt, O'Shanghnessy, Zool. Record, xiii, Rept., p. 6; *Emys grayi* Bocourt, Miss. Sci. Mex., iii, p. 13, pl. iii, figs 2, 2a, nec Guntheri; *Emys callirostris* Boc., Journ. Zool., 1876, 387, nec Grayi; *Emys concinna* Gray, nec Holbrookii, Am. Mag. Nat. Hist., 1873, 119. •  
Coast of Guatemala, Bocourt; Tehuantepec, Sumichrast.

PSEUDEMYS SALVINI Günther; *Emys salvini* Günther, Biol. Amer. Centr., Reptiles, p. 4, tab. ii and iii.

Guatemala, Salvini.

PSEUDEMYS CALLIROSTRIS; *Emys callirostris* Gray, Catal. Shield Rept., Brit. Mus., 1855, p. 25, pl. xii B; *Callichelys callirostris* Gray, Am. Mag. Nat. Hist., 1863, p. 181. W. Central America, Gray.

PSEUDEMYS MOBILIENSIS Holbrook; *Emys mobiliensis* Holbrook, N. Amer. Herp., i, p. 71, t. 9; *Ptychemys mobiliensis* Agassiz.  
Cadereita, Nuevo Leon, Agassiz.

#### Dermatemys Gray.

Ann. and Mag. Nat. Hist., 1847, p. 60; Proc. Zool. Soc. Lond., 1847, p. 55; Catal. Shield Rept., Brit. Mus., 1855, p. 49; Proc. Zool. Soc., 1864, p. 125; *Chloremys* Gray, Supplement to Catal. Shield Reptiles Brit. Mus., p. 49.

DERMATEMYS MAVERI Gray, loc. cit.; Catal., Shield Rept. Brit. Mus., 1855, p. 49, pl. xxi; Prendhomme de Borre, Acad. Roy. Belgique (extr. bull., 2 ser., t. xxviii, 1869, p. 116); Bocourt, Mission Sci. au Mex., iii, Rept., p. 17, pl. vii, figs. 2, 2a; *Emys berardii* A. Dum., Catal. Rept., 1851, p. 11, and Archiv. de Mus., 1832, t. vi, p. 231, pl. xv; *Ptychemys berardii* Agassiz, Cont. Nat. Hist. U. S., 1857, p. 434.  
Belize, Bocourt; Tabasco, Berendt.

DERMATEMYS ABNORMIS Cope, Proc. Acad. Phila., 1868, 120; *Chloremys abnormis* Gray, Supplement to Catal. Shield Reptiles Brit. Mus., p. 50.

Belize, Parsons.

#### CINOSTERNIDÆ.

##### Cinosternum Wagler.

CINOSTERNUM CRUENTATUM A. Dum., Cat. meth. des Rept. Mus., 1851, p. 16, and Description des Reptiles nov. and imp. connus, arch. du Mus., 1852, t. vi, p. 238, pl. xvi; *C. mexicanum* Leconte, Proc. Acad. Phila., 1854, p. 182; *C. shavianum* (Agass.) Bocourt, Journ. Zoöl., 1876, 397, nec Bellii.

Mexico and Central America, Duméril; Chiapas, Sumichrast.

CINOSTERNUM TRILIRATUM Lec., Proc. Acad. Phila., 1859, 6.

Vera Cruz, Pease.

CINOSTERNUM ALBOGULARE Bocourt, Miss. Sci. au Mex., iii, p. 24.  
San José, Costa Rica, Bocourt.

CINOSTERNUM LEUCOSTOMUM A. Dum., Catal. Meth. Coll. Rept. Mus., 1851, p. 17, and Descr. Rept. nov. (Arch. de Mus., 1852, t. vi, p. 239, pl. xvii); Bocourt, Miss. Sci. au Mex., iii, 1870, p. 25; Günther, Biol. Amer. Centr. Zoöl. Rept., p. 17, tab. xvi, xvii.

Mexico and Guatemala; Vera Paz, Morelet; Old Harbor and Sipurio, Costa Rica, Gabb; Nicaragua, Bransford; Tabasco, Berendt; Cozumel, Id., Ridgway.

**CINOSTERNUM HIRTIPES** Wagler, Descr. and Icones Amphib., 17, 1833, pl. xxx; Dum. et Bibr., Erp. Gén., t. ii, p. 370; Bocourt, Miss. Sci. au Mex., iii, p. 25; *C. henroti* Leconte, Proc. Acad. Phila., 1859, 4; Cope and Yarrow in Report U. S. G. G. Survey W. of 100th Mer., v. Zoöl., p. 583, t. 16.

City of Chihuahua, *Wilkinson*; Guanajuato, *Dugés*; Colima, *Xantus*; Mazatlan and Tres Marias Id., *Forrer*.

**CINOSTERNUM INTEGRUM** Leconte, Proc. Acad. Phila., 1854, p. 183; Günther, Biologia Centr. Amer. Zoöl., Reptiles, p. 16,  
"Mexico," *Vera Cruz, Pease*.

**CINOSTERNUM EFFELDTII** Peters, Mon. Ber. Akad. Berlin, 1873, p. 603; Günther, Biol. Centr. Amer. Rept., p. 16. *C. berendtianum* Cope, Proceedings Acad. Phila., 1865, 189. *Vera Cruz, Peters*.

**CINOSTERNUM BREVIGULARE** Günther, Biol. Centr. Amer., Reptiles, p. 17, pl. xviii, f. A., May, 1885.

Playa Vicenté, *Sallé*.

**CINOSTERNUM POSTINGUINALE** Cope, *Cinosternum leucostomum* "Dum." Cope Journ. Acad. Phila., 1875, 153, nec Dumerilii. *Cinosternum brevigulare*, Cope, Proc. Amer. Philos. Soc., 1885, June, p. 389, nec Güntheri, *supra*.  
E. coast Costa Rica, *Gabb*.

**CINOSTERNUM COBANUM** Günther, Biol. Centr. Amer. Zoöl., Rept., p. 18, tab. xviii B.; Guatemala, *Salvin*; Cababon, *Sarg*.

#### **Staurotypus** Wagler.

Nat. Syst. Amphib., 187, 1830.

**STAUROTYPOUS TRIPORCATUS** Wagler, Dum. et Bibr. Erp. Gén., t. ii, p. 356.  
East coast of Mexico; Tabasco, *Berendt*.

**STAUROTYPOUS SALVINI** \* Gray, Bocourt, Miss. Sci. Mexique, iii, Reptiles, p. 22, pl. v, f. 3, 1870; Günther, Biologia Centrali Americana, 1885, Rept., p. 11; *Stauremys salvini* Gray, Proc. Zool. Soc., Lond., 1864, p. 27; Suppl. Cat. Shield Rept., 1870, 65; *Claudius severus* Cope, Proc. Acad., Phila., 1872, p. 24, teste Günther; *Claudius pictus* Cope, l. c., p. 26.

Guatemala, *Salvin*; Vera Paz, *Bocourt*; Tehuantepec, *Sumichrast*.

\* Dr. Günther, after examination of several specimens of this species, comes to the conclusion that the *Claudius severus* is not different, and that the genus *Stauremys* of Gray must be united with *Staurotypus*. As Dr. Günther finds Gray's definitions of both his species and genus to be only applicable to certain individuals, or to be unreliable, his conclusions are accepted in this catalogue, and the supposed forms united.

Another observation of Günther in the same work (Biologia Centrali-Americana), requires notice. He remarks that he does not find the characters of the genus *Claudius* sufficiently distinct from *Staurotypus*. As I at one time, without full investigation, placed the *Staurotypus salvini* in *Claudius*, I have given some support to such a view. On examination of the plastron of the two species, I now find that they not only belong to different genera, but to different families and different suborders. *Staurotypus* is clidostern, with the plastron and carapace firmly united by close suture. In this division it enters the *Cinosternidae*, having no mesosternal bone. On the other hand, *Claudius* is one of the *Chelydridae*, the plastron having only contact with the carapace by free digitations (Dactylosterna), and there is a large mesosternal bone. Its near ally is *Chelydra*.

## DACTYLOSTERNA.

## CHELYDRIDÆ.

Claudius Cope.

Proc. Acad. Phila., 1865, p. 187, 1872, p. 24, pars; Bocourt, Miss. Sci. Mexique, Rept., p. 19.

CLAUDIUS MEGALOCEPHALUS Bocourt, Ann. Sci. Nat. Zool., 1868, x, p. 122; Proc. Acad. Phila., 1872, p. 27; *C. angustatus*, "Cope," Bocourt, Miss. Sci. au Mex., Zool. Rept., p. 20, pl. iv, figs. 1, 2, 3, 4.

Mexico, Bocourt.

CLAUDIUS ANGUSTATUS Cope, Acad. Phila., 1865, p. 187; Proc. Amer. Phil. Soc., 1869, pl. ix.

Tobasco, Berendt.

Chelydra Schw.

*Chelonura* Flem.; *Emysaurus*, Dum. et Bibr.

CHELYDRA SERPENTINA Linn., Bocourt, Miss. Sci. au Mex., iii, pl. v, fig. 1. Tehuantepec, Sumichrast; Guatemala, Bocourt.

CHELYDRA ROSSIGNONII Bocourt, Miss. Sci. au Mex., iii, p. 18, pl. v, fig. 2. Pansos, Guatemala, Bocourt.

## CHELONIIDÆ.

Chelonia Brongniart.

CHELONIA IMBRICATA Linn., Dum. Bibr., Erp. Gen., ii, p. 547. Lower California, *Comision Geographica*.

CHELONIA AGASSIZI Dum. et Boc., Mission Scientif. au Mexique, iii, p. 26, pl. vi. Nagualate, *Guatemala*; Lower California.

## ATHECÆ.

## SPHARGIDIDÆ.

Sphargis Merrem.

SPHARGIS CORIACEA Rondelet; Holbrook, N. Am. Herp., ii, p. 45.

E. Costa Rica, Gabb; Guaymas, Sonora (description in letter to Prof. Baird.—E. D. Cope.)

## LACERTILIA.

The arrangement adopted in this catalogue is in general that of my system published in 1864,\* but I have subordinated the divisions somewhat differently. This consists chiefly in distributing the divisions of the group I then proposed under the name of Pleurodonta, and regarding them as of equal rank with the other three primary suborders—Acrodonta, Nyctisaura, and Opheosauri. This distribution establishes five additional suborders, and two new ones are added, the Geccovarani and the Anguisauri. The former of these is based on characters brought out by Mr. Boulenger in his essay on the classification of the Lacertilia;† the latter is made necessary by a different estimation of the characters I described in the memoir above men-

\* Proc. Acad. Phila., 1864, p. 224.

† Ann. Mag. Nat. Hist., 1884, p. 117.

tioned. The number of suborders is thus eleven, and the families they embrace number twenty-two. For the characters of five of these families I am indebted largely to Mr. Boulenger.

As elsewhere, the orders and families of *Lacertilia* cannot be arranged in a linear series. There are three lines whose terminal groups are the *Chamæleontidæ*, the *Geconidæ*, and the *Scincidæ*, respectively, and between these most of the families can be arranged. The suborders and families are as follows:

I.—Proötic not produced beyond arched body; dentition acrodont; olfactory lobes not underarched; two suspensoria;

No clavicle nor mesosternum; no columella; tongue papillose, extremity sheathed.

I. *Rhiptoglossa*.

A clavicle proximally simple; an anchor-shaped mesosternum; a columella; tongue papillose, not sheathed ..... II. *Acrodonta*.

II.—Proötic bone not produced beyond arched body; dentition pleurodont; olfactory lobes not underarched; two suspensoria;

A clavicle proximally simple; an anchor-shaped mesosternum; a columella; tongue papillose, not sheathed ..... III. *Iguanida*.

III.—Proötic bone produced beyond arched body; dentition pleurodont, or nearly so; two suspensoria.

α Clavicle simple proximally; olfactory lobes not underarched by frontal.

Mesosternum cruciform; tongue papillose ..... IV. *Diploglossa*.

αα Clavicle proximally simple; olfactory lobes underarched by frontal.

Vertebrae procoelous; tongue smooth ..... V. *Thecaglossa*.

Vertebrae amphicoelous; tongue papillose ..... VI. *Geocovarani*.

ααα Clavicle proximally expanded; olfactory lobes underarched by os frontale.

Tongue papillose or smooth ..... VII. *Nyctisaura*.

αααα Clavicles, when present, expanded proximally; olfactory lobes not underarched.

Clavicles, mesosternum, and sternum present; surangular distinct; tongue scaly.

VIII. *Leptoglossa*.

Clavicles, mesosternum, and sternum absent; tongue scaly ..... IX. *Typhlopthalmi*.

IV.—Proötic bone produced beyond arched body; one suspensorium (=opisthotic wanting); pelvic arch rudimentary or wanting.

Frontal bone underarching olfactory lobes; supraoccipital gomphosis internal; no orbitosphenoid ..... X. *Anguieauri*.

Frontal bone underarching olfactory lobes; supraoccipital gomphosis external; an orbitosphenoid ..... XI. *Opheoauri*.

The families of these suborders are the following:

I.—*RHIPTOGLOSSA*.

There is but one family of this suborder, the *Chamæleontidæ*, with the following characters:

Parietal arch elevated, consisting of the squamosal and parietal bones; splenial bone none; toes short, presenting in opposition to each other ..... 1. *Chamæleontida*.

This family is confined to Africa and Madagascar.

II.—*ACRODONTA*.

But one family represents this suborder.

Parietal arch not elevated, consisting of parietal and opisthotic; toes not opposable, directed forwards ..... 2. *Agamida*.

III.—*IGUANIA*.

Surangular bone absent ..... 3. *Anolida*.

Surangular bone present ..... 4. *Iguanida*.

## IV.—DIPLOGLOSSA.

Cranial arches present; mesosternum cruciform; teeth pleurodont; temporal fossa roofed; tongue not sheathed at tip.....5. *Zonuridae*.  
 Cranial arches absent; pre and postfrontal bones uniting above orbit; surangular, articular, and angular bones not distinct; tip of tongue not retractile. 6. *Pygopodidae*.  
 Cranial arches present; mesosternum cruciform; teeth pleurodont; temporal fossa roofed; osteodermal plates; tip of tongue sheathed.....7. *Anguidae*.  
 Cranial arches present; mesosternum cruciform; teeth pleurodont; temporal fossa not roofed; no osteodermal plates; tip of tongue sheathed .....8. *Xenosauridae*.  
 Postfrontosquamosal arch wanting; mesosternum without transverse elements; teeth half pleurodont.....9. *Helodermidae*.

## V.—THECAGLOSSA.

Postorbital arch incomplete; Meckel's groove open; nasal bones united; temporal fossa not roofed.....10. *Varanidae*.

## VI.—GECCOVARANI.

Postorbital and postfrontosquamosal arches wanting; interclavicle minute; nasal bones united; tip of tongue not retractile; occipital condyle divided. 11. *Uroplatidae*.

## VII.—NYCTISAURA.

Vertebrae procellos; parietal bones united .....10. *Eublepharidae*.  
 Vertebrae amphicellos; parietal bones separate .....11. *Geconidae*.

## VIII.—LEPTOGLOSSA.

α. One premaxillary bone :  
 Parietal bones distinct; temporal fossa roofed; no osteodermal plates.12. *Xantusiidae*.  
 Parietals united; temporal fossa not roofed; no osteodermal plates .....13. *Teidae*.  
 Parietals united; temporal fossa roofed; no osteodermal plates .....14. *Lacertidae*.  
 Parietals united; temporal fossa roofed; osteodermal plates .....15. *Gerrhosauridae*.  
 αα. Premaxillary bones two :  
 Parietals united; temporal fossa roofed; osteodermal plates .....16. *Scincidae*.

## IX.—TYPHLOPHTHALMI.

Two premaxillaries; arches present; occipital segment closely articulated; eye distinct .....17. *Acontidae*.  
 One premaxillary; arches wanting; occipital loosely attached; eye concealed by epidermis .....18. *Anelytropidae*.

## X.—ANGUISAURI.

Tongue papillose; one premaxillary; no columella; no arches; occipital closely articulated; eye distinct .....19. *Aniellidae*.

## XI.—OPHEOSAURI.

Teeth half pleurodont; anterior limbs present .....20. *Chirotidae*.  
 Teeth half pleurodont; no fore limbs .....21. *Amphisbaenidae*.  
 Teeth acrodont; no fore limbs .....22. *Trogonophidae*.

NYCTISAURA.

GECCONIDÆ.

Gonatodes Fitz.

Systema Reptilium, p. 91, 1843; Cope, Proceeds. Acad. Phila., 1863, p. 102; Boulenger, Catal. Liz. Brit. Mus., i, 1885, p. 56; *Gymnodactylus* Dum. Bibr., Erp. Gen., iii, p. 408, pars, nec *Spixii*.

GONATODES ALBIGULARIS Dum., Bibr. de la Sagra, Cuba, Erp. Générale, iii, p. 415. Nicaragua, *MacNiel*.

Subspecies FUSCUS Hallow., *Stenodactylus fuscus* Hallow., Journ. Acad. Phila., 1855, p. 33; *Gymnodactylus fuscus* A. Dum., Arch. Mus., 1856, t. viii, p. 477; Bocourt, Miss. Sci. au Mex., part iii, p. 48, pl. x, fig. 5.

Nicaragua, *MacNeill*.

*Sphæroactylus* Cuvier.

Gray, Catal. Liz. Brit. Mus., 1845, p. 168; Cope, Proc. Acad. Phila., 1861, p. 497.

SPHÆROACTYLUS GLAUCUS Cope, Proc. Acad. Phila., 1865, p. 192; Journ. Acad. Phila., 1875, p. 118; Bocourt, Miss. Sci. au Mex., iii, p. 46.

E. Costa Rica, *Gabb*; Vera Paz, *Godman*; Peten, *Berendt*; Tabasco, *Berendt*; Tehuantepec, *Sumichrast*; Belize, *Meekling*; Yucatan, *Schott*; Coatzacoalcos R., *Street*.

SPHÆROACTYLUS ANTHRACINUS Cope, Proc. Acad. Phila., 1861, p. 500; Bocourt, Miss. Sci. au Mex., iii, p. 46.

Jalapa, *Pease*; "Mexico," *Berkenbusch*.

SPHÆROACTYLUS LINEOLATUS Lichtenstein, Nomencl. Rept. Amphib., 1866, p. 6; Bocourt, Miss. Sci. au Mexique, part iii, p. 46; Boulenger, Catal. Liz. Brit. Mus., 1885, i, p. 221; *S. millepunctatus* Hallow., Proc. Acad. Phila., 1860, p. 488; Cope, l. c., 1861, p. 499; Bocourt, Miss. Sci. au Mex., iii, p. 45.

Nicaragua, *Stimpson*; Veragua, Central America, *Peters*.

SPHÆROACTYLUS HOMOLEPIS Cope, Proc. Amer. Philos. Soc., 1885, Nov., 1886, p. 277. Nicaragua, *Bransford*.

Aristelliger Cope.

Proc. Acad. Phila., 1861, p. 496; Boulenger, Catal. Liz. B. M., 1885, i, 146; *Idiodactylus* Bocourt, Mission Scientifique au Mexique, 1870, p. 41.

ARISTELLIGER IRREGULARIS Cope, Proc. Amer. Philos. Soc., 1885, p. 387. Cozumel Id., Yucatan, *Ridgway*.

ARISTELLIGER PRÆSIGNIS Hallowell, Cope, Proc. Acad. Phila., 1861, p. 496; *Hemidactylus præsignis* Hallow., loc. cit., 1856, p. 222.

? Nicaragua, *Stimpson*.

ARISTELLIGER GEORGEËNIS Bocourt; *Idiodactylus georgeënsis* Bocourt, Mission Scientifique au Mexique, 1870, p. 41, pl. x, fig. 1 et a b c d.

St. George's Island, Belize, *Mission Scientifique*.

*Hemidactylus* Cuvier.

Dum. Bibr., Erp. Gen., iii, 344.

HEMIDACTYLUS NAVARREI Dugés, Naturaleza Mexico, 1883, p. 309, pl. 7a. West coast, *Dugés*.

**Phyllodactylus** Gray.

Dum. Bibr., Erp. Générale, iii, p. 388; *Diplodactylus* Gray, Catal. Brit. Mus.

**PHYLLODACTYLUS TUBERCULOSUS** Weigm. Acta, Acad. Caes. Leop. Caral. Nat. Cuv., xvii, pt. 1, p. 241, pl. xviii, fig. 2; Dum. Bibr., iii, p. 396; Bocourt, Miss. Sci. au Mex., iii, p. 43, pl. x, fig. 3-3a; *P. xanti* Cope, Proc. Acad. Phila., 1863, p. 102.

Nicaragua, MacNiel; Tehuantepec, Sumichrast; Coban, Hague; Guadalaxara, J. J. Major; Durango, Webb; Lower California, Xantus.

**PHYLLODACTYLUS UNCTUS** Cope; *Diplodactylus unctus* Cope, Proc. Acad. Phila., 1863, p. 103; Bocourt, Miss. Sci. au Mex., iii, p. 43.

Cape San Lucas, Lower California, Xantus.

**Thecadactylus** Cuvier.

Gray, Catal. Liz. Brit. Mus., 1845, 146.

**THECADACTYLUS RAPICAUDUS** Houtt; Gray, Catal. Liz. Brit. Mus., 1845, p. 146; *Gecko rapioauda* Houtt, Act. Acad. Haar., ix, 322, pl. iii, fig. 1; *Platydactylus theconyx* Dum. Bibr. Erp. Gén., iii, p. 306.

E. Costa Rica, Gabb; Coban, Hague; Yucatan, Schott; Guadalaxara, Major.

**EUBLEPHARIDÆ.\***

Boulenger, Catal. Lit. Brit. Mus., 1885, i, p. 229.

**Coleonyx** Gray.

Annals and Magaz. Nat. Hist., 1845, xvi, p. 162; *Brachydactylus* Peters, Monatsber. Berl. Acad. Wiss., 1863, 41.

**COLEONYX ELEGANS** Gray, Annals and Magaz. Nat. Hist., 1845, p. 162; Duméril, Arch. der Museum, viii, p. 483, pl. xvii, fig. 6; Cope, Journ. Acad. Phila., 1875, p. 118; Bocourt, Miss. Sci. au Mex., iii, p. 49, pl. x, fig. 7; *Gymnodactylus scapulatus* A. Dum., Catal. Rept. du Museum de Paris, p. 45; *Brachydactylus mitratus* Peters, l. c., p. 42.

Costa Rica, Zeledon, Peters; Peten, Guatemala, Borondt, Morelet; Yucatan, Schott; Presidio Tierra Caliente of Vera Cruz, Sumichrast.

**IGUANIA.****ANOLIDÆ.**

Cope, Proc. Acad. Phila., 1864, p. 228.

**Anolis** Merr.

**ANOLIS BOUVIERI** Bocourt, Miss. Sci. au Mex. et dans l'Amerique Centrale, 1874, p. 58, pl. xiv, figs. 8, 8a.

Esquintla Guatemala, Bouvier.

**ANOLIS BACCATUS** Bocourt, Miss. Sci. au Mex., 1874, p. 59, pl. xiv, fig. 14. Mexico, Sallé.

**ANOLIS GUENTHERI** Bocourt, Miss. Sci. au Mex., 1874, p. 61, pl. xix, fig. 15. ? Hab.

**ANOLIS LÆVIVENTRIS** Weigmann, Herp. Mex., 1834, p. 47; *Dactyloa lœviventris* Weigmann; *A. lœviventris* Bocourt, Miss. Sci. au Mex., iii, p. 87, pl. xvi, figs. 18, 18a. Mexico, Peters.

\* For a second species of this family see addenda.

ANOLIS INSIGNIS Cope, Proc. Acad. Phila., 1871, p. 213; Journ. Acad. Phila., 1875, p. 120.  
Costa Rica, *Van Patten, O'Shaughnessy*.

ANOLIS MICROTUS Cope, Proc. Acad. Phila., 1871, p. 214; Journ. Acad. Phila., 1875, p. 119.  
Costa Rica, *Van Patten*.

ANOLIS PACHYPSUS Cope, Journ. Acad. Phila., 1875, p. 123; Batr. and Report of Costa Rica, p. 122.  
Pico Blanco, Costa Rica, *Gabb*.

ANOLIS RODRIGUEZII Bocourt, Miss. Sci. au Mex., iii, p. 62, pl. xiii, fig. 1a.  
San Juan River, Nicaragua, *Kennicott, Bransford*; *Pansos sur le Polochic, Guatemala, Bocourt*.

ANOLIS TROCHILUS Cope, Proc. Acad. Phila., 1871, p. 215; Journ. Acad. Phila., 1875, p. 121.  
San Jose, Costa Rica, *Van Patten*; Nicaragua, *Bransford*; Buhio Soldado, Panama, *Bransford*; Costa Rica, *Gabb*.

ANOLIS BRANSFORDII Cope, Proc. Acad. Phila., 1874, p. 67.  
Nicaragua, *Bransford, Moser*.

ANOLIS AUREOLUS Cope, Proc. Amer. Philos. Soc., 1884, p. 390.  
Yucatan, *Schott*. Guatemala, *Hague*.

ANOLIS SALLAEI Günther, Proc. Zool. Soc. London, 1859, p. 421; 1860, p. 453; Bocourt, Miss. Sci. au Mex., iii, p. 90, pl. xiii, fig. 3, et pl. xvi, figs. 21, 21a, 21b.  
Dueñas, Guatemala, *Günther*. St. Augustin, Guatemala, *Bocourt*.

ANOLIS BINOTATUS Peters, Monats. Akad. Wiss. Berlin, 1863, p. 40; Bocourt, Miss. Sci. au Mex., iii, p. 92, pl. xvi, figs. 22, 23.  
Rep. Salvador, *Bocourt*.

ANOLIS CUPREUS Hallow., Proc. Acad. Phila., 1860, p. 480; Bocourt, Miss. Sci. au Mex., iii, p. 94.  
Nicaragua, *Stimpson, Bransford, MacNiel*.

ANOLIS LONGICAUDA Hallow., Proc. Acad. Phila., 1860, p. 481.  
Nicaragua, *Stimpson, MacNiel*.

ANOLIS CYMBOPSIS Cope, Proc. Acad. Phila., 1864, p. 173; Bocourt, Miss. Sci. au Mex., iii, p. 95.  
Vera Cruz, *Brit. Mus.*

ANOLIS USTUS Cope, Proc. Acad. Phila., 1864, p. 172; Bocourt, Miss. Sci. au Mex., iii, p. 96.  
Belize, *Brit. Mus.*

ANOLIS CONCOLOR Cope, Proc. Acad. Phila., 1862, p. 180; Bocourt, Miss. Sci. au Mex., iii, p. 96; *Anolis refugens* Schleg. Hallowell, Proc. Acad. Phila., 1860, p. 480; *Gastrotropis concolor* Cope, Proc. Acad. Phila., 1862, p. 180.  
Nicaragua, *Stimpson*.

ANOLIS BIPORCATUS Weigmann, Herp. Mex., 1834, p. 47; Cope, Proceedings Acad. Phila., 1865, p. 197; 1871, p. 215; 1874, p. 68. *Anolis petersii* Bocourt, Miss. Sci. Mex., iii, p. 79, pl. viii, f. 2, et pl. xv, figs. 11, 11a; Boulenger, Catal. Liz. Brit. Mus., 1886, ii, p. 66.  
Nicaragua, *Bransford*; Vera Cruz, *Sartorius, Semichrast*.

ANOLIS CHRYSOLEPIS Dum. et Bibr., Erp. Gén., 1837, t. iv, p. 94; Gray, Catal. Liz. Col. Brit. Mus., 1845, p. 207; Dum., Catal. Meth. Col. Report Mus. Paris, 1851, p. 56; Guichenot, Explorat. de l'Amérique Merid., 1855, t. ii, p. 15, pl. iv, fig. 1; Bocourt, Miss. Sci. au Mex., iii, p. 90, pl. xvi, fig. 26.  
Mexico, Bocourt; Honduras, Catal. Brit. Mus., ed. ii, 1885, p. 90.

ANOLIS CAPITO Peters, *A. Draconura capito* Peters, Monatsber. Akad. Wiss. Berlin, 1863, p. 142; *A. capito* Bocourt, Miss. Sci. au Mex., iii, p. 101, pl. xvi, figs. 27, 27a; Cope, Journ. Acad. Phila., 1875, p. 124; *Anolis carneus* Cope, Proc. Acad. Phila., 1864, p. 169.  
 Costa Rica, *Gabb*; Vera Paz, Guatemala, *Bocourt*; Rio Frijoles, Panama, *Bransford*; Nicaragua, *Bransford*.

ANOLIS TROPIDONOTUS Peters, Monatsber. Akad. Wiss. Berlin, 1863, p. 135; *Anolis tropidonotus* Peters, Ann. and Mag. Nat. Hist., 1869, p. 273; *Norops auratus* O'Shaughnessy, Ann. and Mag. Nat. Hist., 1869, p. 183; 1869, p. 274; Bocourt, Miss. Sci. au Mex., iii, p. 103, pl. xiii, figs. 6, 6a, et pl. xvi, fig. 30.  
 Orizaba, *Peters*, *Sumichrast*, et *Bourguet*; Tehuantepec, *Sumichrast*.

ANOLIS UNIFORMIS Cope, Proc. Amer. Philos. Soc., 1865, p. 392.  
 Guatemala, *Hague*; Yucatan, *Schott*.

ANOLIS METALLICUS Bocourt, Ann. Sci. Nat., 1872; Miss. Sci. Mex. Report, pl. xvii, bis fig. 1.  
 Mexico, *Bocourt*.

ANOLIS HUMILIS Peters, Monatsber. Akad. Wiss. Berlin, 1863, p. 138; Bocourt, Miss. Sci. au Mex., iii, p. 105, pl. xiii, figs. 7, 7a, et pl. xvi, fig. 31.  
 Veragua, *Peters*.

ANOLIS QUAGGULUS Cope, Proc. Amer. Philos. Soc., 1865, p. 391; 1886, 276.  
 Rio San Juan Nicaragua, *Kennicott*, *Bransford*.

ANOLIS HELIACTIN Cope, Proc. Acad. Phila., 1864, p. 172; Bocourt, Miss. Sci. au Mex., iii, p. 106, pl. xiii, figs. 4, 4a, 4b, 4c, et pl. xvi, fig. 32.  
 Oaxaca, *Sallé*.

ANOLIS CRASSULUS Cope, Proc. Acad. Phila., 1864, p. 173; Bocourt, Miss. Sci. au Mex., iii, p. 82, pl. xvi, fig. 17.  
 Vera Paz, *Brit. Mus.*; Nicaragua, *Bransford*; Guatemala, *Bocourt*.

ANOLIS LIMIFRONS Cope, Proc. Acad. Phila., p. 178; Bocourt, Miss. Sci. au Mexique, iii, p. 65, pl. xiv, fig. 20.  
 Veragua, *Mitchill*.

ANOLIS PALPEBROSUS Peters, Monatsber. Berlin Acad. 1873, p. 740.  
 Chiriqui, *Peters*.

ANOLIS NEBULOSUS Weigmann, Herp. Mex., 1834, p. 47; Zoologie du Mexique, iii, p. 68, pl. xv, fig. 3.  
 Batopilas Chihuahua, *Wilkinson*; Cuernavaca, *Méhedin*; Oaxaca, *Sallé* and *Boucard*; Yucatan, *Schott*; Colima, *Dugés*; Mazatlan, *Bischoff*; Guadalaxara, *Major*; Tehuantepec, *Sumichrast*; Tepexi Puebla, *Comision Geográfica*.

ANOLIS INTERMEDIUS Peters, Monatsber. Akad. Wiss. Berlin, 1863, p. 143; Bocourt, Miss. Sci. au Mex., iii, p. 69, pl. xv, fig. 4; Cope, Journ. Acad. Phila., 1875, p. 124.  
 Veragua, *Peters*; Costa Rica, *Gabb*.

ANOLIS NANNODES Cope, Proc. Acad. Phila., 1864, p. 173; Bocourt, Miss. Scien. au Mexique, iii, p. 71, pl. xv, fig. 5.  
 Tehuantepec, *Sumichrast*; Yucatan, *Schott*; Coban, Guatemala, *Godman*, *Salvin* and *Bocourt*; Costa Rica, *Riotte*; Xalapa, *Montes de Oca*; Orizaba, *Sumichrast*; Mardor, *Sartorius*; Actopan and Jicaltepec, Vera Cruz, *Comision Geográfica*.

ANOLIS JACOBII, Bocourt, Miss. Scien. au Mex., iii, p. 73, pl. xiii, fig. 8.  
 Vera Cruz, *Bocourt*; San Juan River, Nicaragua, *Kennicott*.

ANOLIS NEBULOIDES Bocourt, Miss. Scien. au Mex., iii, p. 74, pl. xiii, fig. 10.  
 Putla, Oaxaca, *Bocourt*.

ANOLIS SALVINI Boulenger, Catal. Lizards Brit. Mus., ii, p. 75.  
 Guatemala, *Godman*.

# BATRACHIANS AND REPTILES, CENTRAL AMERICA AND MEXICO. 31

ANOLIS BOURGAEI Bocourt, Miss. Scien. au Mex., iii, p. 76, pl. xv, fig. 9.  
Huatusco, Vera Cruz, Peters; Orizaba, Bourget.

ANOLIS COPEI Bocourt, Miss. Scien. au Mex., iii, p. 77, pl. xv, figs. 10-10a; Cope, Journ. Acad. Phila., p. 121, 1875.  
Vera Paz, Salvin, Sary; Santa Rosa de Pansos, Guatemala, Bocourt; Old Harbor, Costa Rica, Gabb; Nicarguana, Bransford.

ANOLIS DOLLFUSIANUS Bocourt, Miss. Scien. au Mexique, iii, p. 84, pl. xvi, figs. 19-19a.  
St. Augustin, Guatemala, Bocourt.

ANOLIS PULCHRIPES Peters, Monatsber. Berlin Acad., 1873, p. 739; Boulenger, Catal. Liz. Brit. Mus., ii, p. 53.  
Chiriqui, Peters.

ANOLIS HOFFMANII Peters, Monatsber. Akad. Wiss., Berlin, 1863, p. 142; Bocourt, Miss. Scien. au Mex., iii, p. 86, pl. xv, figs. 15-16.  
Costa Rica, Hoffmann; Guatemala, Hague.

ANOLIS TROPIDOLEPIS Boulenger, Catal. Liz. Brit. Mus., ii, p. 56.  
Costa Rica, Godman.

ANOLIS SCHIEDII Wiegmann, *Dactyloa schiedii* Weigmann; Herpet. Mex., 1834, p. 48;  
Mission Scien. au Mex., 1874, p. 61, pl. xiv, fig. 19; *Anolis sericeus* Hallowell, Proc. Acad. Phila., 1856, p. 227.  
Coban, Vera Paz, Bocourt; Xalapa, Pease.

ANOLIS POLYLEPIS Peters, Monatsber. Berlin Akad., 1873, 738; Boulenger, Catal. Liz. Brit. Mus., ii, p. 52.  
Chiriqui, Peters.

ANOLIS CUMMINGII Peters, Monatsber. Akad. Wiss. Berlin, 1863, p. 140; Bocourt, Miss. Scien. au Mex., iii, p. 89, pl. xvi, fig. 20.  
"Mexico," Peters.

ANOLIS GODMANI Boulenger, Catal. Liz. Brit. Mus., ii, 1886, p. 85.  
Guatemala, Costa Rica, Godman.

ANOLIS OXYLOPHUS Cope, Batr. and Rept. Costa Rica, Journ. Acad. Phila., 1875, p. 123.  
Nicaragua, Bransford; Costa Rica, Gabb.

ANOLIS TESSELLATUS O'Shaughnessy, Ann. and Mag. Nat. Hist., 1875, p. 279; Cope, Journ. Acad. Phila., 1875, p. 124.  
Costa Rica O'Shaughnessy.

ANOLIS VITTIGERUS Cope, Proceedings Acad. Phila., 1862, p. 179; *Anolis biporcatus* "Wiegm.," Bocourt, Miss. Sci. Mex. Rept., iii, p. 98, pl. xv, figs. 8-8a, nec Wiegmannii.\*  
Guatemala, Bocourt, Salvin.

ANOLIS DAMULUS Cope, Proc. Acad. Phila., 1864, p. 169.  
? Hab.

ANOLIS BECKERI Boulenger, Proc. Zool. Soc. London, 1881, p. 921; Catl. Brit. Mus., Lizards, ii, p. 46.  
Yucatan, Catal. Brit. Mus.

\* There is apparently some confusion in European works as to the determination of this species and the *A. biporcatus* of Wiegmann. The former is supposed by Bocourt, O'Shaughnessy, and Boulenger to be the species named *A. biporcatus* by Wiegmann in the *Herpetologia Mexicana* many years previously. I have on the other hand regarded the large common species of Eastern Mexico as the true *A. biporcatus*; but M. Bocourt regards it as undescribed, and names it *A. petersii*. Now Wiegmann's collections were, so far as I am aware, made in Mexico, and it is scarcely likely that this large species escaped him. On the other hand the *A. vittigerus* is a Central and South American species, much less conspicuous, and does not occur in Mexico. It is highly probable that Prof. Wiegmann had not seen it at the time of the writing of the *Herpetologia Mexicana* (1834). There is nothing in Wiegmann's description which disagrees with the Mexican species, or especially indicates the *A. vittigerus*. It looks as though some exchange of labels had taken place in the transmission of the specimens from Berlin to Paris.

**ANOLIS PENTAPRION** Cope, Proc. Acad. Nat. Sci., Phila., 1862, p. 178.  
Nicaragua, *Bransford*.

**ANOLIS SAGRÆI** Cocteau, Hist. de l'isle de Cuba, par Ramon de la Sagra, 1843, p. 131, tab. 13, fig. 1; Dum. et Bibr., Erpét. Générale, t. iv, 1837, p. 149; Gray, Cat. Liz. Coll., Brit. Mus., 1845, p. 203; Bocourt, Miss. Scien. au Mexique, iii, p. 80, pl. xv, fig. 14.

St. George's, Belize, *Bocourt*; Yucatan, *Schott*; Cozumel Id., *Ridgway*; Guatemala and Honduras, *Catal. Brit. Mus.*

### IGUANIDÆ.

#### **Polychrus** Cuvier.

Regne Animal, 1817, p. 4.

**POLYCHRUS GUTTUROSUS** Berthold, Abh. Gess. Göttingen, iii, 1847, p. 5, pl. i, fig. 1; *P. multicarinatus* Peters, Monatsber. k. Preuss. Akad., 1869, p. 786; Bocourt Miss. Sci. au Mex., pl. xvii, fig. 8; Cope, Journ. Acad. Phila., 1875, p. 124.  
Costa Rica, *Peters*.

#### **Basiliscus** Laurenti.

Specimen Syn. Reptil., 1768, p. 50.

**BASILISCUS PLUMIFRONS** Cope, Journ. Acad. Phila., 1875, p. 125, pl. xxv, fig. 1; Boulenger, Catal. Liz. B. M., ii, p. 108.  
E. Costa Rica, *Gabb*.

**BASILISCUS AMERICANUS** Laurenti, specimen, p. 50; Bocourt, Miss. Sci. Mex., 127; Boulenger, Catal. Liz. B. M., ii, 1886, p. 108; *Basiliscus mitratus* Daud., Duméril et Bibr., Erp. Gen. iv, p. 181, 1837; Cope, Journ. Acad. Nat. Sci., 1875, p. 125, pl. xxv, fig. 2; "*Ophryocessa bilineata* Gray, Zoöl. Brechey's Voyage, p. 94"; *Lophosaura goodridgei* Gray, Ann. Mag. Nat. Hist., London, 1852, p. 438; Richardson, Zoölogy Herald, p. 143, pl. xxvi; *Basiliscus goodridgei* Cope, l. c.

Costa Rica, *Peters*, *Godman*.

**BASILISCUS GUTTULATUS** Cope, Journ. Acad. Phila., 1875, p. 156.  
Buhio Soldado, Panama, *Bransford*.

**BASILISCUS VITTATUS** Wiegmann, Isis, 1828, p. 373; Wagler., Syst. Amph., 1830, p. 148; *Edicoryphus vittatus*, l. c., p. 148; Gray, Synops. Report in Griffith's Anim. Kingd., 1831, t. ix, p. 45; *Corythoelus vittatus* Kaup, 1829, Isis, p. 1147; Weigmann, Herp. Mex., pt. 1, 1834, p. 15 et 40, pl. v; *Basiliscus (Cristasaura) nuchalis* Cope, Proc. Acad. Phila., 1862, p. 181; *Draconura bivittata* Hallow., Proc. Acad. Phila., 1860, p. 482; *Paraloma bivittata* Cope, loc. cit., 1862, p. 181; *Anolis bivittatus* Bocourt, Miss. Sci. au Mex., p. 97.

Vera Cruz, *Sumichrast*; Costa Rica, *Gabb*; Belize, *Meehling*; Yucatan, *Schott*; Nicaragua, *Caldwell*, *Kennicott*; Tehuantepec, *Sumichrast*; Guatemala, *Hague*; Cozumel Id., *Ridgway*; Colima, *Xantus*.

#### **Corythophanes** Boie.

Gray in Griffith's Anim. Kingd., ix, Syn., p. 55; Wiegmann, Herpet. Mexicana, p. 15; *Chameleopsis* Weigmann, Gray.

**CORYTHOPHANES PERCARINATUS** Duméril, Arch. Mus. Hist. Nat., t. viii, 1856, p. 518, pl. xx, fig. 3-3a.; Bocourt, Miss. Sci. au Mexique, iii, p. 120, pl. xvii, fig. 2.  
Escuintla and San José, Guatemala, *Van Patten*; Guatemala, *Morelet*; Coban, Vera Paz, *Bocourt*.

**CORYTHOPHANES MEXICANUS** Bocourt, Miss. Sci. au Mex., iii, p. 121, pl. xvii, fig. 1; *C. chameleopsis* Dum. et Bibr.; *Chameleopsis hernandesi* Gray, Catal. Brit. Mus., 1845, 194.

Vera Cruz, *Boucard*, *Comision Geográfica*; Jalapa, *Montes-de-Oca*, *Sumichrast*; Chiapas, Tehuantepec, *Sumichrast*.

**CORYTHOPHANES CRISTATUS** Boie, *Isis*, 1827; Gray, *Synops. in Griffith's Anim. Kingd.*, 1831, t. ix, p. 55; Gravenhorst, *Act. Acad. Cæsar Leop. Carol. Nat. Curios.*, t. xvi, pars. ii, 1833, p. 838, tab. 65, fig. 6x10; Wiegmann, *Herp. Mex.*, pars. i, 1834, p. 15; Duméril et Bibron, *Erpétologie Génér.*, t. iv, 1837, p. 174; Fitzinger, *Syst. Report* 1843, p. 52; Gray, *Catal. Spec. Liz. Coll. Brit. Mus.*, 1845, p. 194; Aug. Duméril *Cat. Meth. Coll. Report*, Paris, 1851, p. 60; *Arch. Mus. Hist. Nat.*, t. viii, 1856, p. 517, pl. xx, fig. 1; Cope, *Journ. Acad. Phila.*, 1875, p. 124; Merrem, *Bocourt, Miss. Sci. au Mexique*, iii, p. 118; *Lacerta ceylonica cristata et pectinata* Seba, 1734, t. i, p. 147, tab. 94, fig. 4; *Agama cristata* Merrem, *Syst. Amph.*, 1821, p. 50; *C. mexicanus* Cope, *Proc. Amer. Philos. Soc.*, 1884, p. 183.

Guatemala, *Hague*; Darien, *Selfridge*; E. Costa Rica, *Salvin*; Peten, *Morelet*; Panama, Pacific side, *Bransford*; Vera Paz, *Gabb.*; Nicaragua, *Bransford, Moser*.

#### *Læmanctus* Wieg.

*Herpet. Mexicana*, 1835, pp. 16, 45; Dum. *Bibr.*, *Erp. Gén.*, iv, 70 pars; *Læmanctus* Fitzinger, *Syst. Rept.*, 1843, 63; Cope; Boulenger.

**LÆMANCTUS SERRATUS** Cope, *Proc. Acad. Phila.*, 1864, p. 176; *Læmanctus longipes* Aug. Duméril, *Arch. Mus.*, t. viii, 1856, pl. xxi, figs. 4-4a; *Bocourt, Miss. Scien. au Mex.*, iii, p. 116.

Oaxaca, *Ghiesbrecht*; Vera Cruz, *Comision Geográfica*.

**LÆMANCTUS ALTICORONATUS** Cope, *Proc. Acad. Phila.*, 1865, p. 192; *Proc. Amer. Philos. Soc.*, 1869, pl. xi.

Yucatan, *Schott*.

**LÆMANCTUS DEBORREI** Boulenger, *Bull. Soc. Zool. France*, 1877, 465, pl. vii, f. 1. Vera Paz, *Salvin*; Tabasco, *Boulenger*.

**LÆMANCTUS LONGIPES** Wiegmann, *Herp. Mex.*, 1834, p. 46, tab. 4; Dum. et Bibr., *Erp. Gén.*, 1837, t. iv, p. 172; Gray, *Catal. Liz. Coll. Brit. Mus.*, 1845, p. 185; Aug. Duméril, *Catal. Rept. Mus. Paris*, p. 55; *Bocourt, Miss. Sci. au Mexique*, iii, p. 114, pl. xvii, fig. 4.

Vera Cruz, *Sumichrast, Sartorius, Mehedin et Boucard*; Coban, Guatemala, *Salvin*; Actopam, *Comision Geográfica*.

#### *Iguana* Laurenti.

*Spec. Synopsis Rept.*, 1765, p. 47; Duméril et Bibron, *Erp. Gén.*

**IGUANA TUBERCULATA** Laur., *Syn.*, 49; *Lacerta iguana* Shaw, *Zool.*, iii, 199; *I. delioatisima* Latr., R. 185; Daud., *Rept.*, iii, 263 to 40, 277 and 280; *I. cœrulea* Daud., *Rept.*, iii, 266; Spix., *Braz.*, 7, t. vii; *I. sapidissima* Merrem, *Tent.*, 49; *I. squamosa* Spix., *Braz.*, 5, t. 5; *I. viridis* Spix., *Braz.*, 6, t. 6; *I. emarginata* Spix., *Braz.*, 7, t. 8; *I. lophyroides* Spix., *Braz.*, 8, t. 9.

Subspecies **RHINOLOPHA** Wiegmann; Cope, *Proceeds. Amer. Philos. Soc.*, 1869, p. 161; Boulenger, *Catal. Liz. Brit. Mus.*, 1885, p. 190; *Iguana rhinolopha* Wiegmann, *Herp. Mex.*, pars 1, 1834, p. 44; *Bocourt, Miss. Sci. au Mexique*, iii, 134; Cope, *Journ. Acad. Phila.*, 1875, p. 124.

Nicaragua, *MacNiel*; Tehuantepec, *Sumichrast*; Costa Rica, *Gabb*; Colima, *Xantus*; Cozumel Id., *Ridgway*; Tabasco, *Lazlo*; Southern Puebla, and Alatorre, Vera Cruz, *Comision Geográfica*; Swan Ids., coast of Honduras, *Cope*.

#### *Ctenosaura* Wieg.

*Isis von Oken*, 1828, p. 371; Cope, *Transac. Amer. Philos. Soc.*, 1885; *Enyaliosaurus* Gray, *Cat. Liz. Br. Mus.*, 1845, p. 192.

**CTENOSAURA HEMILOPHA** Cope, *Proc. Acad. Phila.*, 1863, p. 105; *Proc. Amer. Philos. Soc.*, 1885, 266; Boulenger, *Catal. Liz. Brit. Mus.*, ii, 1885, p. 197; *Ctenosaura acanthura* Bocourt, *Miss. Sci. Mexique*, *Rept.*, p. 138; *Cyclura acanthura* Dum. *Bibr.*, pars, *Erp. Gén.*, iv, p. 224.

Lower California, *Xantus, Botta*.

✓ **CTENOSAURA MULTISPINIS** Cope, Transac. Amer. Philos. Soc., 1885, p. 267.  
Oaxaca, *Sumichrast*; Batopilas, Chihuahua, *Wilkinson*.

✓ **CTENOSAURA BREVIROSTRIS** Cope, loc. cit., p. 268.  
Colima, *Xantus*.

✓ **CTENOSAURA TERES** Harlan; *Cyclura teres* Harlan, Journ. Acad. Phila., t. iv, 18-25, p. 246, tab. 16; *Ctenosaura pectinata* Wiegmann, Herpetologia Mexicana, 1834, p. 42, tab. 2; Duméril et Bibron, Erp. Gén., t. iv, 1837, p. 221; Fitzinger, Syst. Rept., 1843, p. 56; Gray, Catal. Brit. Mus., 1845, p. 49; Cope, Proc. Acad. Phila., 1866, p. 124; Bocourt, Miss. Sci. au Mex., iii, p. 140; Wiegmann, Herpet. Mex., 1834, p. 42; Bocourt, Miss. Sci. au Mex., iii, p. 142; *Ctenosaura armata* Gray, Synopsis in Griffith's Anim. Kingd., t. ix, 1831; *Cyclura acanthura* Sumichrast, Biblioth. Univers. et Rev. Suisse (Arch. des Sciences Phys. Nat.), 1864, p. 49).

Nicaragua, *MacNiel*; Tehuantepec, *Sumichrast*; Tampico, *Dallas*; Alatorre, Vera Cruz, *Comision Geográfica*; Vera Cruz, *Méhedin*; Coatzacoalcos, *R. Streets*; Mexico, *Ghiesbrecht*; Colima, *Xantus*, *Dugés*.

Subspecies **BRACHYLOPHE** Cope, Proc. Amer. Philos. Soc., 1886, p. 269.  
Mazatlan, *Bischoff*.

**CTENOSAURA COMPLETA** Bocourt, Miss. Sci. du Mexique, iii, Rept., p. 145; Cope, Proceedings. Amer. Philos. Soc., 1885, p. 269; *Cyclura pectinata* Cope, Proc. Acad. Phila., 1866, p. 124; Proc. Amer. Philos. Soc., 1885, p. 388.

Guatemala, *Bocourt*; Yucatan, *Schott*; Cozumel Id., *Ridgway*; San Salvador, *Miss. Scientif.*

✓ **CTENOSAURA QUINQUECARINATA** Gray, Cope, Pr. Amer. Philos. Soc., 1885, p. 269; Boulenger, Catal. Liz. B. M., 1885, p. 198; *Emylosaurus quinquecarinatus* Gray, Catal. Sauria Brit. Mus., 1845, 192; *Cyclura (Ctenosaura) quinquecarinata* Cope, Proc. Acad. Nat. Sci. Phila., 1869, p. 161.

Tehuantepec, *Sumichrast*.

#### Cachryx Cope.

Proceeds. Acad. Phila., 1866, p. 124; Boulenger, Catal. Lizards Brit. Mus., 1885, p. 198.

✓ **CACHRYX ERYTHROMELAS** Boulenger; *Ctenosaura erythromelas* Boulenger, Proceedings. Zool. Soc. London, 1886, p. 241, pl. xxiii.

Habitat?

✓ **CACHRYX DEFENSOR** Cope, Proceedings. Acad. Phila., 1866, p. 124; Proceedings. Amer. Philos. Soc., 1869, pl. x; Bocourt, Miss. Sci. Mex., p. 148.

Yucatan, *Schott*.

#### Enyalioides Boulenger.

Catal. Liz. Brit. Mus., ii, 1885, p. 112.

**ENYALIOIDES HETEROLEPIS** Bocourt; Boulenger, l. c., p. 114; *Enyalius heterolepis* Boc., Mission Scientif. Mex., Rept., pl. xx, c. f. 14; Ann. Sci. Nat., 1874, art. 4.

Veragua, *Bocourt*.

#### Dipsosaurus Hallowell.

Proc. Acad. Phila., 1854, p. 92.

**DIPSOSAURUS DORSALIS** Bd. & Gird.; *Crotaphytus dorsalis* Bd. & Girard, Proc. Acad. Phila., 1852, p. 126; U. S. & Mex. Bound. Surv., 1859, p. 8, pl. xxxii, figs. 7-13.

Lower California, *Xantus*.

#### Crotaphytus Holbr.

N. Amer. Herpetology, vol. ii, p. 72, 1842.

**CROTAPHYTUS COPEI** Yarrow, Proc. U. S. Nat. Mus., 1882, p. 441.

Lower California, *Belding*.

**CROTAPHYTUS COLLARIS** Say; Holbrook, l. c.; *Agama collaris* Say.

City of Chihuahua, *Wilkinson*.

**Sauromalus Duméril.**

Archives du Muséum, viii, 1856, 536; *Euphryne* Baird, Proc. Acad. Phila., 1858, 253.

**SAUROMALUS ATER** A. Duméril, Arch. Mus., t. viii, 1856, p. 536, pl. xxiii, fig. 3-3a; *Euphryne obesa* Baird, Proc. Acad. Phila., 1858, p. 253; U. S. & Mex. Bound. Surv., 1859, p. 6, pl. xxvii; *Sauromalus ater* Bocourt, Miss. Sci. au Mex., iii, Rept., p. 149, pl. xviiib, fig. 11-11a, 11b.

Lower California, *Duméril*.

**Uta Bd. Gird.\***

Proc. Acad. Phila., 1852, p. 69; *Urosaurus* Hallowell, Proc. Acad. Phila., 1854, 92; *Phymatolepis* Dum., Arch. du Musé, viii, 548; Bocourt, Miss. Sci. Mexique, Rept., p. 165; *Petrosaurus* Boulenger, Catal. Liz. Brit. Mus., ii, 1885, p. 205.

**UTA IRREGULARIS** Fischer, Abhandl. Nat.-Wiss. Verein, Bremen, vii, 1881, p. 232.  
"Mexican Plateau," *Fischer*.

**UTA BICARINATA** Duméril; Cope, Proc. Acad. Phil., 1864, p. 117; *Phymatolepis* Duméril, Archiv. du Mus., 1856, p. 549, pl. xxiii, figs. 2, 2a, 2b; Bocourt, Miss. Sci. Mex., 165. Batopilas, Chihuahua, *Wilkinson*; City of Chihuahua, *Wilkinson*; Guanajuato, *Dugés*; Puebla, *Boucard*; Tehuantepec, *Sumichrast*; Matamoros Puebla, *Mision Geográfica*.

**UTA AURICULATA** Cope, Proc. Boston Soc. Nat. Hist., 1871, 303.  
Socorro, Revillagigedo Ids., *Grayson*.

**UTA LATERALIS** Boulenger, Am. Mag. Nat. Hist., London, 1883, p. 342; Catal. Liz. Brit. Mus., ii, 1885, p. 214.  
Presidio W. Mexico; Tres Marias Is., *Forrer*.

**UTA NIGRICAUDA** Cope, Proc. Acad. Phila., 1864, p. 176.  
Cape St. Lucas, Lower California, *Xantus*.

**UTA STANSBURIANA** Bd. Gird., Proc. Acad. Phila., vi, 1852, p. 69; Stansbury's Great Salt Lake, 1852, 345, Reptiles, pl. v.  
Cape St. Lucas, Lower California, *Xantus*.

**UTA THALASSINA** Cope, Proc. Acad. Phila., 1863, p. 104; *Petrosaurus thalassinus* Boulenger, Catal. Liz. Brit. Mus., ii, 1885, p. 205.  
Cape St. Lucas, Lower California, *Xantus*.

**Sceloporus Wiegmann.**

Isis, 1828, p. 369; *Tropidolepis* Cuvier, Régne Anim., 2d ed., 1829, t. 2, p. 38.

**SCELOPORUS HORRIDUS** Wiegmann, Herpetologia Mexicana, pt. i, 1834, p. 50; *Tropidolepidus horridus* Dum. Bibr., Erp. Gén., iv, 1837, 306; Bocourt, Miss. Sci. Mex., p. 178, pl. xviii, 8, 8a, 8b; *Sceloporus oligoporus* Cope, Proc. Acad. Phila., 1864, p. 177. Colima, *J. Xantus*, *A. Dugés*; Guadalaxara, *Major*; Vera Cruz, *Mission Scientifique*. **SCELOPORUS SINIFERUS** Cope, Proc. Amer. Philos. Soc., 1869, p. 159; *Sceloporus humeralis* Bocourt, Miss. Sci. Mex., 1875, p. 206, pl. xviii, bis, figs. 3, 3a, 3b. Tehuantepec, *Sumichrast*; Oaxaca, *Sallé*.

**SCELOPORUS SQUAMOSUS** Bocourt, Miss. Sci. Mex., 1875, 212, pl. xviii, bis, 7, 7a, 7b, 7c, xix, fig. 3.

Costa Rica, *Van Patten*; Guatemala, *Miss. Scientif.*

**SCELOPORUS UTIFORMIS** Cope, Proc. Acad. Phila., 1864, p. 177; Bocourt, Miss. Sci. Mex., 187, p. 208, pl. xviii, bis, 6, 6a, 6b.  
Colima, *J. Xantus*, *Dugés*.

**SCELOPORUS CHRYSTOSTICTUS** Cope, Proc. Acad. Phila., 1866, p. 125; *Sceloporus cupreus* Bocourt, Miss. Sci. Mex., 1875, p. 210, pl. xviii, bis, 2, 2a, 2b.  
Yucatan, *Schott*; Guatemala, *Van Patten*; Oaxaca, *Boucard*.

\*The sole character which distinguishes *Sauromalus* from *Uta* is the short and obtuse tail. At present the value of this definition appears doubtful, and the genera may have to be united.

**SCELOPORUS SCALARIS** Wiegmann, Herp. Mex., 1834, p. 52, tab. 8, fig. 2; *Tropidolepis scalaris* Dum. Bibr., Erp. Gén., iv, 1837, p. 310; *Sceloporus scalaris* Baird, U. S. & Mex. Bound. Surv., Reptiles, p. 6; Bocourt, Miss. Sci. Mex., p. 202, 1875, pl. xviii, bis, 9, 9a, 9b.

Colima, *Dugés*; Cuernavaca, *Méhédin*; City of Mexico, *Cope*; Zacualtipan Hidalgo, *Cope*; Orizaba, *Sumichrast*; Monterey, *Cope*; S. W. Texas, *Marnoch*; Sonora, *Kennerly*; Puebla, *Comisión Geográfica*.

**SCELOPORUS AENEUS** Wiegmann, Herp. Mex., 1834, p. 52; Bocourt, Miss. Sci. au Mex., iii, Report, p. 204, pl. xviii, bis, figs. 4, 4a, 4b; *Tropidolepis aeneus* Dum. et Bibr., Erp. Gen., t. iv, 1837, p. 309; *Sceloporus aenus* Fitzinger, Syst. Rept., 1843, p. 75; *Tropidolepis aeneus* Gray, Catal. Brit. Mus., 1845, p. 210; Id. Aug. Duméril, Catal. Mus. Paris, 1851, p. 78.

"Mexico," *Boucard*; Jalapa, *Flohr*; Guanajuato, *Dugés*; Puebla, *Comisión Geográfica*.

**SCELOPORUS VARIABILIS** Wiegmann, Herp. Mex., 1834, p. 51; Bocourt, Miss. Sci. Mex., 187-, p. 200, pl. xviii, bis, 1, 1a, 1b, xix, fig. 2; *Tropidolepis variabilis* Dum. et Bibr., Erp. Gén., iv, 1837, p. 308.

Guatemala, both slopes, *Mission Scientifique*; La Union, San Salvador, *Comisión Scientifique*; Guatemala, *Hague*; Tehuantepec, *Sumichrast*; Puebla, *Comisión Geográfica*; Orizaba, *Sumichrast*; Mirador, Vera Cruz, *Sartorius*; Xalapa, *Montes de Oca*; Monterey, *Cope*.

**SCELOPORUS PYRRHOCEPHALUS** Cope, Proc. Acad. Phila., 1864, p. 177.

Colima, *Xantus*; Guadalaxara, *Major*.

**SCELOPORUS MALACHITICUS** Cope, Proc. Acad. Phila., 1864, p. 178; *Sceloporus smaragdinus* Bocourt, Miss. Sci. Mex., 1875, p. 186, pl. xviii, figs. 6, 6a, 6b, xix, figs. 11a, 11b. Costa Rica, *Riotte*, *Gabb*; Guatemala, *Hague*, *Salvin*, *Van Patten*; Yucatan, *Schott*.

**SCELOPORUS GRACIOSUS** Bd. Gird., Proc. Acad. Phila., 1852, p. 69; Stansbury's Report Great Salt Lake, 1852, 346, pl. v, fig. 1; Bocourt, Miss. Sci. Mex.; *Sceloporus gracilis* Bd. Gird., Proc. Acad. Phila., 1852, 175; Girard, Herpetol. U. S. Ex. Exped., 1858, pl. xx, figs. 1-9.

Salt Lake City, Utah, Pitt River, California, *Newberry*; Owen's valley, Cal., *Horn*; Southern Oregon, *Cope*; VAR. Jalapa, Matamoros, *Comisión Geográfica*.

**SCELOPORUS GRAMMICUS** Wiegmann, Herp. Mex., pt. i, 1834, p. 51; etiam *Isis von Oken*, p. 369, exclus. var. *microlepidota*; Bocourt, Miss. Sci. Mex., 187-, p. 192, pl. xviii, bis 12, 12a, 12b; *Sceloporus heterurus* Cope, Proc. Acad. Phila., 1866, p. 332.

Tehuantepec, *Sumichrast*; Mirador, Vera Cruz, *Sartorius*; Chihuahua, *Wilkinson*; Matamoros Puebla, *Comisión Geográfica*.

**SCELOPORUS MICROLEPIDOTUS** Wiegmann, Herp. Mex., 1834, p. 51; Bocourt, Miss. Sci. Mex., p. 194, pl. xviii, bis figs. 13, 13a, 13b, 13c, 13d; *Tropidolepis microlepidotus* Dum. Bibr., Erp. Gén., iv, 1837, p. 307.

Colima, *Ghiesbrecht*; Puebla, *Dugés*, *Ferrari-Perez*; Oaxaca, *Boucard*; Toluca, *Villada*; Zacualtipan, *Bernad*, *Cope*; Mirador, Vera Cruz, *Sartorius*; Orizaba, *Sumichrast*; Guanajuato, *Dugés*; Jalapa, *Flohr*.

**SCELOPORUS VIVIPARUS** Cope, Proc. Amer. Philos. Soc., 1885, p. 398.

Orizaba, *Sumichrast*; Mirador, Vera Cruz, *Sartorius*; Tehuantepec, *Sumichrast*.

**SCELOPORUS UNDULATUS** Latr. Wiegmann, *Isis*, 1828, 369, Bd. Gird., U. S. Pac. R. R. Surveys, Whipple's Report, p. 37; Bocourt, Miss. Sci. Mex., 195, pl. xviii, bis figs. 11, 11a, 11b; *Stellio undulatus* Latreille, *Hist. Nat. Rept.*, ii, 1802, p. 40; *Agama undulata* Daudin, *Hist. Nat. Rept.*, iii, 1805, p. 384; *Uromastix undulatus* Green Merrem, *Tropidolepis undulatus* Cuv., *Regne Animal*, Ed. ii, ii, 1829, p. 38; Gray, *Catal. Brit. Mus.*, 1845, 208; Dum. et Bibr., Erp. Gén., iv, 1837, p. 298; Holbrook, *N. Amer. Herpetol.*, iii, 1838, p. 58, pl. viii; *Sceloporus occidentalis* Bd. Gird., Proc. Acad. Phila., 1852, p. 175; *S. frontalis* Bd. Gird., loc. cit.; *Sceloporus longipes* Baird, l. c., 1858, p. 254; *S. dispar* Bd. Gird., l. c., 1852-'53, p. 127; *S. floridanus* Baird, l. c., 1858, p. 254.

North America, from ocean to ocean. City of Chihuahua, *Wilkinson*.

SCELOPORUS SPINOSUS Wiegmann, Isis, 1828, p. 369; Herp. Mex., pars. i, 1834, p. 50, tab. vii, fig. 3; Fitzinger, Syst. Rept., 1843, p. 75; Bocourt, Miss. Sci. au Mex., iii, Rept., p. 174, pl. xviii, figs. 2, 2a, 2b; *Tropidurus spinosus* Wagler, Syst. Amph., 1830, p. 146; *Tropidolepis spinosus* Gray, Synops. Rept. in Griffith's Anim. Kingd., t. ix, 1831, p. 43; Duméril et Bibron, Erp. Gén., t. iv, 1837, p. 304; Gray, Catal. Liz. Brit. Mus., 1845, p. 209; Aug. Duméril, Catal. Meth. Col. Rept., 1851, p. 77.

Guanajuato, *Dugés*; Puebla, *Comisión Geográfica*; Tehuacan, *Comisión Geográfica*.

The *S. spinosus* approaches the *S. undulatus* very closely, differing principally in size and in color, and the smaller number of femoral pores. A Texan form appears to connect the two.

SCELOPORUS ZOSTEROMUS Cope, Proc. Acad. Phila., 1863, p. 105; *S. clarki* subsp. *zosteromus* Cope, Check-list, 1875, p. 49.

Lower California, *Xantus*, *Belding*; Southern Arizona.

SCELOPORUS MELANORHINUS Bocourt, Ann. des Sciences Naturelles, iii, 1876, p. 85. Tehuantepec, *Sumichrast*; Colima, *Xantus*.

SCELOPORUS TENIOCNEMIS Cope, Proc. Amer. Philos. Soc., 1885, p. 399.

Guatemala, *Hague*.

SCELOPORUS LUNÆI Bocourt, Miss. Sci. au Mex., iii, Rept., p. 184, pl. xviii, bis figs. 5, 5a, 5b.

Guatemala, *Bocourt*.

SCELOPORUS FERRARIPIEREZI Cope, Proc. Amer. Philos. Soc., 1885, p. 400.

? Guanajuato, *Dugés*.

SCELOPORUS MELANOGASTER Cope, Proc. Amer. Philos. Soc., 1885, p. 400.

Guanajuato, *Dugés*.

SCELOPORUS SERRIFER Cope, Proc. Acad. Phila., 1866, p. 124; Proc. Amer. Philos. Soc., 1885, pp. 395-401.

Yucatan, *Schott*.

SCELOPORUS ACANTHINUS Bocourt, Mission Scientifique Mexique, iii, Reptiles, 180, pl. xviii, figs. 10, 10a, 10b; xix, figs. 4, 4a.

St. Augustino, West Guatemala, *Mission Scientifique*.

SCELOPORUS TORQUATUS Greene and Peale; Wiegmann, Isis, 1828, p. 369; Herp. Mex., pars. i, 1834, p. 49, tab. vii, fig. 1; Fitzinger, Syst. Rept., 1843, p. 75; Gray, Catal. spec. Liz., 1845, p. 208; Aug. Duméril, Catal. méth. coll. Rept., 1851, p. 77; *Sceloporus formosus* Wieg., Herp. Mex., pl. i, 1834, p. 50, tab. vii, fig. 2; Fitzinger, Syst. Rept., 1843, p. 75; Bocourt, Miss. Sci. au Mexique, iii, Rept., p. 182, pl. xviii, figs. 3, 3a, 3b, 3c; Gray, Catal. Liz., 1854, p. 209; Aug. Duméril, Catal. méth. coll. Rept., 1851, p. 77; *Agama torquata* Greene and Peale, Journ. Acad. Phila., t. vi, 1827-1828, p. 231; *Tropidurus torquatus* Wieg., Wagler, Syst. Amph., 1830, p. 146; *Tropidolepis torquatus* Gray, Synops. in Griffith's Anim. King., t. ix, 1831, p. 43; Dum. et Bibr., Erp. Gén., t. iv, 1837, p. 301; *Tropidolepis formosus* Dum. et Bibr., Erp. Génér., t. iv, 1837, p. 303; *Sceloporus poinsettii* Baird and Girard, Proc. Acad. Phila., 1852, p. 126; U. S. & Mex. Bound. Surv., 1859, p. 5, pl. xxix, figs. 1-3; Bocourt, Miss. Sci. au Mex., iii, Rept., p. 171, pl. xviii, figs. 9, 9a, 9b, 9c.

Colima, *Dugés*; Oaxaca, *Boucard*; Jalapa, *Keating*, *Montesdeoca*; Vera Cruz, *Sartorius*; Monterey and Laredo, *Cope*; Texas, *Clark*.

Subspecies *TORQUATUS* P. & G.; Cope, Proc. Amer. Philos. Soc., 1885, p. 402.

Jalapa, *Keating*.

Subspecies *POINSETTII* B. & G.; Cope, l. c., p. 402.

S. W. Texas, *Clark*, *Cope*; Mexico, Chihuahua, *Wilkinson*.

Subspecies *CYANOGENYS* Cope, l. c., p. 402.

Monterey, Nuevo Leon, *Cope*.

Subspecies *MUCRONATUS* Cope, l. c., p. 402.

Vera Cruz, *Sartorius*.Subspecies *FORMOSUS* Wiegm.; Cope, l. c., p. 402.Jalapa, *Montesdeoca*, *Comision Geográfica*.Subspecies *MINOR* Cope, l. c., p. 402.Guanajuato, *Dugés*.

SCELOPORUS JARROVII Cope, Report U. S. Geol. Expl. Surv. W. of 100th Mer., p. 569, pl. xxiii, figs. 2, 2b, 2c, 2d.

Southern Arizona; Ciudad, *Forrer*.

SCELOPORUS ORNATUS Baird, Proc. Acad. Phila., 1858, p. 254; Rept. U. S. &amp; Mex. Bound. Surv., Zool. Reptiles, p. 5.

Patos Coahuila, *Couch*.SCELOPORUS DUGESI Bocourt, Miss. Sci. Mexique, iii, p. 188, pl. xviii, figs. 7, 7a, 7b; *Tropidolepis intermedius* Dugés, La Naturaleza, Mexico, vol. iv, p. 29, pl. i, figs. 21-32.Guanajuato, *Dugés*.**Callisaurus** Blainv.Nouv. Ann. Mus. Hist. Nat., iv, 1835, p. 233; *Homalosaurus* Hallow.; Sitgreaves Exped., 1853, p. 116.CALLISaurus DRACONTOIDES Blainv., loc. cit., pl. xxiv, 2 sta.; *Homalosaurus ventralis* Hallow., loc. cit., pl. vi.Lower California, *Xantus*, *Botta*, *Fisher*.**Holbrookia** Girard.Proc. Amer. Ass. Adv. Sci., 1850-'51, p. 201; *Cophosaurus* Trosch.; Wiegmann. Archiv, 1850-'52, p. 389.HOLBROOKIA ELEGANS Bocourt, Miss. Sci. au Mex., 1874, iii, Rept., p. 164, pl. xvii, bis, figs. 8, 8a; *H. Bischoffii* Cope, Proc. Acad. Phila., 1868, p. 310 (no description). Mazatlan, Peters, Bischoff; S. of Chihuahua, Potts.

HOLBROOKIA MACULATA Gird., Proc. Amer. Ass. Adv. Sci., 1850-'51, p. 201.

Subspecies APPROXIMANS Baird; Cope, Proc. Amer. Philos. Soc., 1879, p. 265; *Holbrookia approximans* Baird, Proc. Phila. Acad., 1858, Dec. U. S. & Mex. Bound. Surv. Rept., p. 8.Guanajuato, *Dugés*; Chihuahua, Wilkinson.HOLBROOKIA TEXANA Troschel; Bd. & Gird., Proc. Acad. Phila., vi, 1852, p. 125; *Cophosaurus texanus* Troschel, Wiegmann's Archiv, 1850-'52, p. 389.Monterey, Tamaulipas, *E. D. Cope*; S. of Chihuahua, *Potts*; Chihuahua, *Wilkinson*.

HOLBROOKIA PROPINQUA Baird; Gird., Proc. Acad. Phila., 1852, p. 126; Cope, Bull. U. S. Nat. Mus., No. 17, 1880, p. 15; Boulenger, Catal. Liz. Brit. Mus., ii, 1885, p. 208.

Presidio, W. Mexico, *Forrer*.**Phrynosoma** Wiegmann.

Isis von Oken, 1828, p. 367; Wagler, Nat. Syst. Amphib., 1830, p. 323.

PHRYNOSOMA MODESTUM Girard, Stansbury's Salt Lake, 1852, 361, pl. vi; U. S. &amp; Mexican Boundary Survey, Reptiles, p. 10. City of Chihuahua, Wilkinson.

PHRYNOSOMA ORBICULARE Hernandez; *Tapaya axin*, *Lacertus orbicularis*, Hernandez, Nov. Plant. Anim. Miss. Mex., 1651, c. xvi, p. 327, fig. sine numero; *Id.*, Linnæus, Syst. Nat., 1789, p. 1062; *Phrynosoma orbiculare*, Wagler, Descr. et Icon., Amphib., 1833, pl. 23, fig. 1-2; *Id.*, Schinz. Naturg. and Abbild. der Rept., 1833, pl. 27, fig. 2; *Id.*, Gravenhorst, Act. Acad. Cæs. Leop. Carol. Nat. Cur., t. xvi, pt. 2, 1833, p. 912, pl. 63; Wiegmann, Herp. Mex., 1834, p. 53; Dum. et Bibr., Erp. Gén., t. iv,

1837, p. 321; Gray, Catal. Brit. Mus., 1845, p. 228; Aug. Duméril, Cat. Méth. Coll. Rept., Paris, 1855, p. 78; Ch. Girard, Stansbury's Explor. Vall. Gr. Salt Lake of Utah, 1852, p. 359; *Tapaya orbicularis*, Cuv., Reg. Anim., t. ii, 1817, p. 35; *Id.* sec. edit., t. ii, 1819, p. 37; Ch. Girard, U. S. Exped. under command of Wilkes, 1858, p. 394; *Id.*, Aug. Duméril et Bocourt, Miss. Sci. au Mex., iii 1870, p. 221, pl. xi, figs. 1-*la*, 1*b*, 1*c*, 1*d*, 1*e*, 1*f*.

Puebla, *Comision Geográfica*; Puebla, *Sallé*; Vera Cruz, *Arago*, *Mehedin*, *Dugés*; City of Mexico, *Cope*; Guanajuato, *Dugés*; S. of Chihuahua, *Potts*.

PHRYNOSOMA BOUCARDI Bocourt, Miss. Sci. au Mex., iii, 1870, p. 225, pi. xl, figs. 4-4*a*, 4*b*, 4*c*, 4*d*, 4*e*, 4*f*.

Plateau of Mexico; *Boucard*.

PHRYNOSOMA BRACONNIERI Bocourt, Miss. Sci. au Mex., 1870, pl. xii, figs. 7-7*a*. Oaxaca, *Jacob*.

PHRYNOSOMA TAURUS Dugés, *La Naturaleza Mexico*, 1868; Dum. et Bocourt, Miss. Sci. au Mexique, 1870, pl. xii, fig. 8. Coscatlan, Puebla, *Dugés*.

PHRYNOSOMA CORNUTUM Harlan, Gray, Synops. Rept. in Griffith's Anim. Kingd., t. ix, 1831, p. 45; Holbrook, N. Amer. Herpet., t. ii, 1842, p. 87, pl. xi; *Id.*, Gray, Catal. Liz. Coll. Brit. Mus., 1845, p. 229; Aug. Duméril, Cat. Méth. Coll. Rept., Mus. Paris, 1851, p. 28; Girard, Stansbury's Explor. Vall. Great Salt Lake, 1852, p. 360, pl. viii, figs. 1-6; *Id.*, E. Blanchard, (syst. osseux), Organ. Reg. Anim., 1852, 5th livr., pl. xii; *Id.*, Hallowell, Sitgreaves, Rept. Exped. Zuni and Color. Rivers, 1853, p. 119; *Id.*, Girard, U. S. Explor. Exped. under the command of Wilkes, 1858, pl. xxi, figs. 6-9, p. 403; *Id.*, U. S. & Mex. Bound. Survey, 1859, p. 9; *Id.*, Bocourt, Miss. Sci. au Mex. Rept., iii, p. 236, pl. xii, figs. 9-9*a*, 9*b*, 9*c*, 9*d*, 9*e*, 9*f*; *Agama cornuta* Harlan, Journ. Acad. Phila., iv, 1825, p. 299; *Tapaya cornuta* Cuvier, Règne Animal, 2d ed., t. ii, 1829, p. 37; *Phrynosoma harlanii* Wiegmann, Herp. Mex., t. i, 1834, p. 54; *Id.*, Dum. et Bibr., Erp. Génér., t. iv, 1837, p. 314; *Id.*, Spring et Lacordaire, Anat., 1842, 2d pt., p. 192, fig. 5 (Bull. Acad. Roy. Bruxelles); *Tropidogaster cornuta* Fitzinger, Synops. Rept., t. i, 1843, p. 79.

Monterey, Nuevo Leon, *E. D. Cope*; City of Chihuahua, *Wilkinson*.

PHRYNOSOMA ASIO Cope, Proc. Acad. Phila., 1864, p. 178; *Id.* Sumichrast, Bibl. Univers. et Rev. Stisse (Arch. Sc. Phys. et Nat., 1873, p. 258); *Batrachosoma asio* Bocourt, Miss. Sci. au Mex., iii, Rept., p. 241, pl. xvii, figs. 9-9*a*, 9*b*, 9*c*; *Phrynosoma spinimentum* Peters, Monatsber. Berlin Akad. Wiss., 1873, p. 742.

Colima, *Xantus*; Chiapas, *Montes de Oca*; Tehuantepec, *Sumichrast*.

PHRYNOSOMA CORONATUM De Blainville, Nouv. Ann. Hist. Nat., iv, 1835, 284, pl. xxv, figs. 1*a*, 6*c*, Dum. Bibr., Erp. Gén., iv, 1837, 318; Aug. Dum., Catal. Méth. Coll. Rept., M. P., 1851, 78; Cope, Proc. Acad. Phila., 1866, p. 302; Dum. et Bocourt, Miss. Sci. Mexique, 1870, pl. x, fig. 10; *Batrachosoma coronatum* Fitz., Girard, Bocourt, l. c., p. 239.

Lower California, *Botta*, *Xantus*, *Fisher*.

#### XENOSAURIDÆ.

Cope, Proc. Phila. Acad., 1866, p. 322.

#### Xenosaurus Peters.

Monatsb. Akad. Wiss. Berlin, 1861, 453.

XENOSAURUS GRANDIS Gray; Cope, Proc. Acad. Phila., 1866, p. 322; *Cubina grandis* Gray, Ann. and Mag. Nat. Hist., 2d series, t. xviii, 1856, p. 270; *Xenosaurus fasciatus* Peters, Monatsbericht Akad. Berlin, 1861, p. 453. Orizaba, *Sumichrast*; Huanasco, *Peters*; Tehuantepec, *Sumichrast*; Oaxaca, *Sallé*.

## HELODERMIDÆ.

Gray; Proc. Acad. Nat. Sci. Phila., 1864, 228; 1866, 322.

## Heloderma Wiegmann.

HELODERMA HORRIDUM Wiegmann, Isis, 1829, p. 627; *Herpetologia Mexicana* 1834, pl. i,

Gray, Catal. Liz. Brit. Mus., 1845.

Tehuantepec, *Sumichrast*; Presidio, West Mexico, *Forrer*.

## ANGUIDÆ.

Boulenger, Ann. Mag. Nat. Hist., 1884, 121, Do. + *Gerrhonotidae*, Cope, Proc. Acad. Nat. Sci. Phila., 1864, 228.

## Gerrhonotus Wiegmann.

Herp. Mex., 1834, p. 31, Isis, 1828, p. 370; *Pterogasterus* Peale and Green, Journ. Acad. Phila., 1830, p. 233.

GERRHONOTUS LIOCEPHALUS Wiegmann, Beitr. zur Amphib., Isis, 1828, p. 379; Bocourt, Miss. Sci. au Mex., iii, Rept., p. 342, pl. xxi A, figs. 1-2-2a; *Gerrhonotus tessellatus* Wiegmann, Herp. Mex., 1834, pars. i, p. 32, pl. x, fig. 3; *Id.*, Dum. et Bibr., Erp. Gén., Hist. Rept., t. v, 1839, p. 405; *Id.*, Gray, Catal. spec. Liz. Brit. Mus., 1845, p. 53; *Id.*, Aug. Duméril, Catal. Rept. Mus. Paris, 1851, p. 143; ? *Gerrhonotus infernalis* Baird, Proc. Acad. Phila., 1858, p. 255; *Id.*, Emory's U. S. & Mex. Bound. Surv., 1859, p. 11; Cope, Proc. Acad. Phila., 1866, p. 322; *Gerrhonotus lemniscatus* Bocourt, Arch. Mus. Bull., t. vii, 1872, p. 105; *Id.*, O'Shaughnessy, Ann. and Mag. Nat. Hist., 1873, p. 45.

Vera Cruz, *Sartorius*; Puebla, *Comision Geográfica*; Oaxaca, Guanajuato, *Dugés*.

GERRHONOTUS OPHIURUS Cope, Proc. Acad. Phila., 1866, 322.

Orizaba, Vera Cruz, *Sumichrast*.

GERRHONOTUS VENTRALIS Peale et Green, Cope, Proc. Acad. Phila., 1866, p. 321; *Pterogasterus ventralis* Peale et Green, Journ. Acad. Phila., 1830, vi, p. 233.\*

Probably valley of Mexico, *E. D. Cope*.

GERRHONOTUS MODESTUS Cope; *Pterogasterus modestus* Cope, Proc. Acad. Phila., 1877, p. 97.

? Guatemala.

GERRHONOTUS DEPPEI Wiegmann, Herp. Mex., 1834, p. 32, pl. ix, fig. 3; O'Shaughnessy, Ann. and Mag. Nat. Hist., 1873, p. 45; Cope, Proc. Amer. Philos. Soc., 1877, p. 96; Bocourt, Miss. Sci. au Mex., iii, Rept., p. 325, pl. xxi A, figs. 3-3a; *Abronia deppei* Gray, Ann. and Mag. Nat. Hist., ii, p. 389; Catal. spec. Liz., 1845, p. 53.

Mexico, *Deppe*.

GERRHONOTUS TAENIATUS Wiegmann, Isis, 1828, p. 379; *Id.*, Herp. Mex., 1834, p. 32, pl. ix, fig. 1; *Id.*, Dum. et Bibr., Erp. Gén., t. v, 1839, p. 399; O'Shaughnessy, Ann. and Mag. Nat. Hist., 1873, p. 45; *Id.*, Cope, Proc. Amer. Philos. Soc., 1877, p. 96 (10th C. H. T. A.); Bocourt, Miss. Sci. au Mex., iii, Rept., p. 327, pl. xxi A, figs. 4-4a-5; *Abronia taeniata* Gray, Catal. spec. Liz. Brit. Mus., 1845, p. 53.

Orizaba, *Sumichrast*.

\*Additional specimens of this species confirm the validity of the character I assigned to this species as above, as distinct from the *G. liocephalus*. These are the longer body and shorter limbs, the presence of a large single preocular plate instead of two, and the uniform coloration. I add that the interparietal plate is longer and narrower, and in one specimen now before me the anterior two internasals are both in front of the nasal plate instead of one being above it. In this specimen there is no anterior interfrontonasal.

**GERRHONOTUS RHOMBIFER** Peters, Monatsber, Akad. Wiss. Berlin, 1876, p. 296; Cope, Proc. Amer. Philos. Soc., 1877, p. 96; Bocourt, Miss. Sci. au Mex., iii, Rept., p. 332, pl. xxi B, figs. 4-4a.

Chiriqui, Veragua, *Peters*.

**GERRHONOTUS VASCONCELOSI** Bocourt, Nouv. Arch. Mus., 1872, p. 107; *Id.*, O'Shaughnessy, Ann. and Mag. Nat. Hist., 1873, p. 45; *Id.*, Cope, Proc. Amer. Philos. Soc. (10th C. H. T. A.); Bocourt, Miss. Sci. au Mexique, iii, Rept., p. 334, pl. xxi, fig 3, et pl. xxi A, fig. 8-8a.

Argueta, Western Guatemala, *Vasconcelos*.

**GERRHONOTUS GRAMINEUS** Cope, Proc. Acad. Phila., 1864, p. 179; *Id.*, O'Shaughnessy, Ann. and Mag. Nat. Hist., 1873, p. 45; *Id.*, Cope, Proc. Amer. Philos. Soc., 1877, p. 96 (10th C. H. T. A.); Günther, Biolog. Centrali-Amer. Rept., p. 36, pl. xxiv, fig. B.

Orizaba, 3,000 meters altitude, and Oaxaca, *Sumichrast*.

**GERRHONOTUS OAXACÆ** Günther, Biologia Centr. Amer., p. 36, pl. xxiv, f. A; Boulenger, Catal. Liz. Brit. Mus., ii, 1885, p. 268; *G. gramineus* "Cope", Bocourt, Miss. Sci. Mex., Rept., 330, pl. xxvi A, fig. 6.

Oaxaca, *Günther*.

**GERRHONOTUS AURITUS** Cope, Proc. Acad. Phila., 1868, p. 306; *Id.*, O'Shaughnessy, Ann. and Mag. Nat. Hist., 1873, p. 45; *Id.*, Cope, Proc. Amer. Phil. Soc. (10th C. H. T. A.).

Vera Paz (Guatemala), *Hague*.

**GERRHONOTUS KINGII** Bell, Ann. Nat. Hist., 1838, vol. i, p. 390; O'Shaughnessy, Ann. and Mag. Nat. Hist., 1873, p. 45; Cope, Proc. Amer. Philos. Soc., 1877, t. xvii, p. 96; Bocourt, Miss. Sci. au Mex., p. 339, pl. xxi C, fig. 2-2a; *Gerrhonotus multifasciatus*, Dum. et Bibr., Erp. Gén., Hist. Nat. Rept., 1839, t. v, p. 401; A. Duméril, Cat. Méth. Coll. Rept. Mus. Paris, 1851, p. 143; *Elgaria kingii*, Gray, Catal. Spec. Liz. Brit. Mus., 1845, p. 53; *Gerrhonotus nobilis* Baird and Girard, Proc. Acad. Phila., 1852, p. 129; *Id.*, U. S. & Mex. Bound. Survey, 1859, p. 11, pl. xxv. figs. 1-8 (teste Bocourt.)

Mexico, *Bell*.

**GERRHONOTUS CERULEUS** Wiegmann, Isis, 1828, p. 330; Herp. Mex., p. 31; Bocourt, Miss. Sci. Mex., 353; Boulenger, Cat. Liz. Brit. Mus., 273.

Mexico, *Deppe*.

**GERRHONOTUS MULTICARINATUS** De Blv., Nouv. Ann. Mus. Hist. Nat., 1835, 289, pl. xxv, fig. 2; Dum. Bibr., Erp. Gén., 1839, v, p. 404; Bocourt, Miss. Sci. au Mexique, 357, pl. xxi C, fig. 5-5a; *G. Burnettii* Gray, Griffith's Anim. King., ix, Syn., p. 64; Beecher's Voyage Rept., p. 96, pl. xxi, f. 2; *G. Wiegmanni* Gray, Catal. Liz. Brit. Mus., 1845, 54; *Tropidolepis scincicauda*, Amer. Journ. Sci. Arts, vii, 1849, 202; *Elgaria scincicauda* Baird and Girard, Stansbury's Salt Lake, 1852, 348, pl. iv. figs. 1-3; Girard, Wilkes Explor. Exped., 1858, pl. xxiii, figs. 1-9; *Elgaria grandis* Baird and Girard, Proc. Acad. Phila., 1852, p. 176; Girard, Wilkes Explor. Exped., 1852, xxii, figs. 1-9; *E. marginata* Hallow., Proc. Acad. Phila., 1852, 179; *Gerrhonotus webbii* Baird, Proc. Acad. Phila., 1858, p. 255; U. S. Mex. Bound. Surv., ii, 1859, p. 11, pl. xxiv, figs. 1-10.

Lower California, *Botta*, *Xantus*; S. of Chihuahua, *Potts*.

**GERRHONOTUS OBSCURUS** Günther, Biologia Centr. Amer. Rept., p. 40, pl. xxv, fig. E. Mexico, *Günther*.

**GERRHONOTUS MONTICOLUS** Cope, Proc. Amer. Philos. Soc., 1877, p. 97; *G. fulvus* "Bocourt", Cope, Journ. Acad. Phila., 1875, p. 118, nec Bocourtii.

Pico Blanco, Costa Rica, *Gabb*.

**Barissia Gray.**

Catal. Liz. Brit. Mus., 1845, p. 46; Cope, Proc. Amer. Philos. Soc., 1879, 97.

\* With two pairs of internasal scuta.

**BARISSIA IMBRICATA** Wiegmann; Gray, Catal. Brit. Mus., 1845, p. 55; *Id.*, Cope, Proc. Amer. Philos. Soc., t. xvii, 1857, p. 97; Bocourt, Miss. Sci. au Mex., iii, Rept., p. 363, pl. xxi B, figs. 1-1a, 2-2a; *Gerrhonotus imbricatus* Wiegmann, *Isis*, 1828, t. xxi, p. 379; Wiegmann, Herpet. Mex., 1834, p. 34, pl. x, figs. 2 et 5; *Id.*, Dum. et Bibr., Erp. Gén., t. v, 1839, p. 407; *Gerrhonotus lichenigerus* Wagler, Descrip. et Icon. Amphib., 1834, pl. xxxiv, fig. 2; *Id.*, Wiegmann, Herp. Mex., 1834, pars 1, p. 35, pl. x, fig. 6.

Cuernavaca, *Méhédin*; Guanajuato, *Dugés*, *Ghiesbrecht*; S. of Chihuahua, *Potts*; Zacualtipan Hidalgo, *Bernad*; Puebla, *Comision Geográfica*.

**BARISSIA RUDICOLLIS** Wiegmann, *Isis*, 1828; Gray, Cat. Liz. Brit. Mus., 1845, p. 55; *Id.*, Cope, Proc. Amer. Philos. Soc., t. xvii, p. 96; *Gerrhonotus rudicollis* Wiegmann, loc. cit., t. xxi, p. 379; *Id.*, Wagler, Nattür. Amphib., 1830, p. 158; *Id.*, Wiegmann, Herpet. Mex., pars i, 1834, p. 31, pl. x, fig. 1; *Id.*, Dum. et Bibr., Erp. Gén., t. v, 1839, p. 410; *Gerrhonotus (Barissia) rudicollis*, Bocourt, Miss. Sci. au Mex., iii, Rept., p. 367, pl. xxi B, figs. 3-3a.

Mexico, *Dippe*.

**BARISSIA PLANIFRONS** Bocourt, Miss. Sci. au Mex., iii, Rept., p. 361, pl. xxi, C, figs. 1-1a.

Oaxaca, *Boucard*.

\*\* With three pairs of internasal scuta.

**BARISSIA ANTÄUGES** Cope, Proc. Acad. Phila., 1866, p. 132; *Gerrhonotus viridiflavus* Bocourt, Ann. Sci. Nat., 1873; *G. bocourtii* Peters, Monatsber. Akad. Wiss. Berl., 1876, p. 297 (Bocourt).

Orizaba; Vera Cruz, *Sunichrast*.

**BARISSIA FIMBRIATA** Cope, Proc. Amer. Philos. Soc., 1884, p. 171; *Gerrhonotus auritus* Bocourt, Mission Scientifique au Mexique, Reptiles, p. 337, pl. xxi, figs. 2, xxi A, 7-7a, nec Copei.

Vera Paz, *Bocourt*, *Peters*.

**Mesaspis Cope.**

Proc. Acad. Phila., 1877, p. 96.

**MESASPIS MORELETI** Bocourt, Cope, Proc. Am. Philos. Soc., 1877, xvii, p. 96; *Gerrhonotus moreletii* Bocourt, Nouv. Arch. du Mus. Bull., 1872, p. 102; Miss. Sci. au Mex., iii, Rept., p. 349, pl. xxi, fig. 1, pl. xxi B, figs. 5-5a; *Gerrhonotus Wiegmannii* Salvin, Proc. Zool. Soc., 1860, p. 455.

Vera Paz, Guatemala; Peten, *Morelet*.

**MESASPIS FULVUS** Bocourt, *Gerrhonotus fulvus* Boc., Miss. Sci. au Mexique, iii, Rept., p. 352; pl. xxi B, figs. 6-6a; Nouv. Arch. Mus. Bull., 1872, p. 104; *Id.*, O'Shaughnessy, Ann. and Mag. Nat. Hist., 1873, p. 45; *Mesaspis fulvus* Cope, Proc. Amer. Philos. Soc., 1877, t. xvii, p. 96.

Totoncapam, Guatemala, west of the Cordillera, at an elevation of 2,460 meters, *Mission Scientifique*.

**Diploglossus Wiegmann.**

Herp. Mex., 1834, p. 36; *Camilia*, Gray, Cat. Liz. Brit. Mus., 1845, p. 118.

**DIPLOGLOSSUS MILLEPUNCTATUS** O'Shaughnessy, Ann. and Mag. Nat. Hist., 1874, t. xiii, p. 301; *Id.*, Am. Nat., 1884, May, p. 514; *Id.*, Bocourt, Miss. Sci. au Mex., iii, Rept., p. 388, pl. xxii A, figs. 5-5a, 5b.

? Hab.

**DIPLOGLOSSUS MONOTROPIS** Kuhl, Wiegmann, Herp. Mex., 1834, p. 36; Wiegmann, Arch., 1837, p. 130; Cope, Jour. Acad. Phila., 1875, p. 118; Bocourt, Miss. Sci. au Mexique, iii, Rept., p. 391, pl. xxii, figs. 6-6a, 6b, 6c; *Scincus monotropis* Kuhl, Beitr., 1820, p. 18; *Tiliqua jamaicensis* Gray, Ann. and Mag. Nat. Sci. Hist., t. ii, p. 293; *Camilia jamaicensis* Gray, Cat. Liz. Brit. Mus., 1845, p. 119.  
Costa Rica, summit of Pico Blanco, *Gabb.*

**Celestus Gray.**

Cat. Liz. Brit. Mus., 1845, p. 117; *Siderolamprus* Cope, Proc. Acad. Phila., 1860, p. 368.  
**CELESTUS STEINDACHNERII** Cope, Proc. Acad. Phila., 1864, p. 179; Bocourt, Miss. Sci. au Mex., iii, Rept., p. 383, pl. xxii, figs. 3-3a, 3b; Günther, Biol. Centr. Amer. Rept., p. 34, pl. xxii, fig. A.  
Orizaba, *Sumichrast*; West Guatemala, *Bocourt*; Vera Paz (Brit. Mus.), *Bocourt* (thirty-two rows of scales); Jalapa, *Comision Geográfica*.  
**CELESTUS CHALYBÆUS** Cope, Proc. Amer. Philos. Soc., 1879, p. 270; Proc. Acad. Phila., 1868, p. 124; Proc. Amer. Philos. Soc., 1884, p. 170; *Diploglossus chalybaeus* Cope, loc. cit., 1866, p. 321 (thirty-four rows of scales).  
Tehuantepec, mountains of Orizaba, Vera Cruz, at an elevation of 4,000 to 6,000 feet, *Sumichrast*; Jalapa, *Kohr*.  
**CELESTUS ENNEAGRAMMUS** Cope; *Siderolamprus enneagrammus* Cope, Proc. Acad. Phila., 1860, p. 368 (thirty-eight rows of scales).  
Jalapa, *De Oca, Flohr.*  
**CELESTUS BILOBATUS** O'Shaughnessy, Bocourt, Miss. Sci. au Mex., p. 382, pl. xxii A, fig. 1.  
Costa Rica, *O'Shaughnessy* ("forty rows of scales").

**XANTUSIDÆ.**

Cope, Proc. Acad. Phila., 1883, p. 29.

**Lepidophyma Duméril.**

Catal. Méth. Batr. Rept. Mus. Paris, 1851, p. 137; *Poroidogaster* Smith, Gray, Proc. Zool. Soc. London, 1863, p. 152.  
**LEPIDOPHYMA FLAVIMACULATUM** A. Duméril, Cat. Méth. Coll. Rept. Mus. Paris, 1851, p. 137; *Id.*, Rev. et Mag. Zool., 1852, p. 409, pl. xvii; *Poroidogaster grayii* Andrew Smith, MSS. published by Gray in Proc. Zool. Soc. London, p. 152, pl. xxi; Bocourt, Miss. Sci. au Mex., iii, Rept., p. 306, pl. xx F, figs. 2-2a, 2b, 2c, 2d, 2e, 2f, 2g. Vera Paz, *Morelet*.  
**LEPIDOPHYMA SMITHI** Bocourt, Miss. Sci. au Mex., 309, pls. xx F 3, xx G 2; Journal Zoologie, 1876, v, p. 403.  
Tehuantepec, *Sumichrast*; W. Guatemala, *Miss. Sci.*

**TEIIDÆ.**

**Amiva Cuvier.**

**AMEIVA GABBIANA** Cope, Batr. and Rept. of Costa Rica, 1875, p. 117.  
East Costa Rica, *Gabb.*

**AMEIVA PULCHRA** Hallowell, Proc. Acad. Nat. Sci. Phila., 1860, p. 483; Bocourt, Miss. Sci. au Mex., iii, Rept., p. 251.  
Nicaragua, *Stimpson, MacNeil.*

**AMIVA UNDULATA** Gray, Catal. Liz. Brit. Mus.; Cope, Proc. Acad. Phila., 1862, Feb.; *Cnemidophorus undulatus* Wiegmann, Herp. Mex., p. 27.  
Guatemala, *Van Patten*; Coban, *Hague*; Peten, *Berendt*; Tehuantepec, *Sumichrast*; Colima, *Xantus*; Mirador Vera Cruz, *Saurorus*; Orizaba, Vera Cruz, *Sumichrast*.

**AMIVA QUADRILINEATA** Hallowell; *Cnemidophorus quadrilineatus* Hallowell, Proc. Acad. Phila., 1860, p. 483; Bocourt, Miss. Sci. au Mex., iii, Rept., p. 251.  
Nicaragua, *Stimpson*.

**AMIVA FESTIVA** Mus. Berol.; Bocourt, Miss. Sci. au Mex., iii, Rept., p. 260, pl. xx A, figs. 10, 10a, 10b, 10c, 10d, pl. xx D, fig. 3; Cope, Journ. Acad. Phila., 1875, p. 117; *Cnemidophorus festivus* Lichtenstein, Nom. Rept. Amph., 1856, p. 13 (diagnosis incorrect); *Amiva eutropis* Cope, Proc. Acad. Phila., 1862, p. 62; *Ameiva Edwardsii* Bocourt, Ann. Sci. Nat., 1863, t. xxii, art. 16.

Central America; Veragua, *Mus. Ber.*; Rio de la Pasion Rio Polochic, *Bocourt*; Costa Rica, *Gabb*; Nicaragua, *Bransford*.

**AMIVA SURINAMENSIS** Gray; Catal. Liz. Brit. Mus., p. 18; *Lacerta ameiva*, *L. lateristriga*, *L. tristriata*, Spix, Anim. Braz., tab. xxiii and xxiv, 182; *Teius ameiva* Merr. Nieuw Zool. Braz. Rept., p. 170; *Ameiva vulgaris* Licht., Dum. et Bibr. Erp. Gén.

Surinam, Venezuela.

Subspecies *PRÆSIGNIS* Cope, Proc. Acad. Phila., 1862, p. 7; *Amiva præsignis* Bd. et Gd.

Panama, *Bransford*.

***Cnemidophorus* Wagler.**

Natur. Syst. Amph., 1830, p. 154.

**CNEMIDOPHORUS GUTTATUS** Wiegmann, Herp. Mex., 1834, p. 29; Gray, Catal. Liz. Brit. Mus., 22; *Amiva guttata* Cope, Proc. Acad. Phila., 1862, Feb.; *Cnemidophorus microlepidopus* Cope, Proc. Amer. Philos. Soc., 1877, p. 93; *Cnemidophorus unicolor* Cope, Proc. Amer. Philos. Soc., 1877, p. 93.

Vera Cruz, *Burroughs*; Orizaba, *Sumichrast*; Jalapa, *Comision Geográfica*; West Tehuantepec, *Sumichrast*.

**CNEMIDOPHORUS IMMUTABILIS** Cope, Proc. Amer. Philos. Soc., 1877, p. 93.  
West Tehuantepec, *Sumichrast*.

**CNEMIDOPHORUS DEPPII** Wiegmann, Herp. Mex., p. 28; Bocourt, Miss. Sci. Mex., Rept., 281, pl. xx, fig. 3; *C. lativittis* Cope, Proc. Amer. Philos. Soc., 1877, p. 94.  
Honduras, *Leconte*; Tehuantepec, west side, *Sumichrast*.

**CNEMIDOPHORUS LINEATISSIMUS** Cope, Proc. Amer. Philos. Soc., 1877, p. 94; Günther, Biol. Cent. Amer., Rept., p. 27.  
Colima, *Xantus*; Guadalaxara, *Major*.

**CNEMIDOPHORUS SEXLINEATUS** Linn.

Subspecies *SEXLINEATUS* Linn.

City of Chihuahua, *Wilkinson*; Monterey, *Cope*; Puebla, *Mision Geográfica*.

Subspecies *COMMUNIS* Cope, Proc. Amer. Philos. Soc., 1877, p. 95.

Var. I, Colima *Xantus*; Coban, Guatemala, *Hague*. Var. II, Guadalaxara, *Major*; Cordova, Vera Cruz, *Sumichrast*; Guatemala, *Hague*.

Subspecies *GULARIS* Bd. Gird. *C. guttatus* Hallow.

City of Chihuahua, *Wilkinson*.

Subspecies *TIGRIS* Bd. Gird.; *Cnemidophorus tigris* Bd. Gird., U. S. & Mex. Bound. Surv., Reptiles, p. 10, pl. xxxiii.

City of Chihuahua, *Wilkinson*.

**CNEMIDOPHORUS MARIARUM** Günther, Biol. Cent. Amer., Rept., p. 28, pl. xx.  
Tres Marias Islands, *Forrer*.

**CNEMIDOPHORUS ANGUSTICEPS** Cope, Proc. Amer. Philos. Soc., 1877, p. 95.  
Yucatan, *Schott*.

**CNEMIDOPHORUS COSTATUS** Cope, Proc. Amer. Philos. Soc., 1877, p. 95.  
The locality uncertain.

**CNEMIDOPHORUS MEXICANUS** Peters.

Between City of Mexico and Chihuahua, *Potts*.

CNEMIDOPHORUS GRAHAMII Bd. Gird., Proc. Acad. Phila., 1852, vi, 128, U. S. & Mex.

Bound. Surv., Rept., p. 10, pl. xxii, figs. 1-6.

Between City of Mexico and Chihuahua, *Potts*.

CNEMIDOPHORUS MAXIMUS Cope, Proc. Acad. Phila., 1863, p. 104.

Lower California, *Xantus*.

CNEMIDOPHORUS INORNATUS Baird, Proc. Acad. Phila., 1858, Dec., U. S. & Mex.

Bound. Surv., ii, Rept., p. 10.

Nuevo Leon, *Couch*.

CNEMIDOPHORUS OCTOLINEATUS Bd., Proc. Amer. Phila., 1858, Dec., U. S. & Mex.

Bound. Surv., ii, p. 10.

Nuevo Leon, *Couch*.

CNEMIDOPHORUS GRACILIS Bd. and Gd., Proc. Acad. Phila., vi, 1852, p. 128; U. S. & Mex.

Bound. Surv., ii, p. 10, pl. xxxiv, figs. 9-14.

Castanuelas Coahuila, *Couch*.

#### Verticaria Cope.

Proc. Acad. Phila., 1863, p. 103.

VERTICARIA HYPERYTHRA Cope, Proc. Acad. Phila., 1863, p. 103.

Lower California, Cape St. Lucas, *Xantus*, *Fisher*; San Diego, Cal., *Lippincott*.

VERTICARIA HEDRACANTHA Bocourt, Cope, Jour. Acad. Phila., 1875, 165; *Amiva hedracantha* Bocourt, Miss. Sci. Mex., p. 263, pl. xxii A, fig. 6; Boulenger, Ann. Mag. Nat.

Hist., 1884, p. 120-22.

“Mexico,” *Dubois*, teste Bocourt.

#### Leposoma Spix.

Cope, Proc. Amer. Philos. Soc., 1866, p. 97; *Chalcidolepis* Cope, Journ. Acad. Phila., 1875, p. 116.

LEPOSOMA METALLICUM Cope; *Chalcidolepis metallicus* Cope, Batr. and Rept. Costa Rica, 1875, p. 116, pl. xxviii, fig. 2.

Aguacate Mountains, W. Costa Rica, *Gabb*.

LEPOSOMA MARMORATUM Gray; *Argalia marmorata* et *olivacea* Gray, Ann. Mag. Nat. Hist., 1846, 67, et Proc. Zool. Soc. London, 1847, p. 97; *Gerrhonotus pacificus* Licht. Nomen. Rept. Mus. Berl., 16.

Veragua, *Günther* (Biol. Centr. Amer.).

#### SCINCIDÆ.

Cope, Proc. Acad. Phila., 1864, p. 228.

#### Mocoa Gray.

Catal. Brit. Mus., 1845, p. 80.

MOCOA ASSATA Cope, Batr. and Rept. Costa Rica, 1875, p. 115; *Lampropolus assatus* Cope, Proc. Acad. Phila., 1864, p. 179; *Lygosoma assatum* Bocourt, Miss. Sci. Mex., p. 450, pl. xxii F, fig. 7.

Talamanca, E. Costa Rica, *Gabb*; Guatemala, *Van Patten*; San Salvador, *Dow*; Tehuantepec, *Sumichrast*.

#### Oligosoma Girard.

Proc. Acad. Phila., and Wilkes' U. S. Exploring Expedition, Herpetology; *Lygosoma* et *Leptosoma* Girard, loc. cit.; *Mocoa* \*\* Gray, Catal. Liz. Brit. Mus., 1845, p. 82.

OLIGOSOMA GEMMINGERI Cope, Proc. Acad. Phila., 1864, p. 180; *Lygosoma gemmingeri* Bocourt, Miss. Sci. Mex., p. 449.

Orizaba, Vera Cruz, *Sumichrast*; Rio Verde, *Sumichrast*; Jalapa, *Comision Geográfica*; Zacualtipan, *Cope*.

*Mabuia* Fitzinger.

Gray, Catal. Brit. Mus., 1845, p. 93.

**MABUIA AGILIS** Raddi, Fitzinger, Nouv. Class. Rept., 1826, 23; Girard, U. S. Expl. Exped., Wilkes, 1858, 261; Cope, Proc. Acad. Phila., 1862, 185; Bocourt, Miss. Sci. Mex., 395, pl. xxii B, fig. 2; *Mabuia unimarginata* Cope, Proc. Acad. Phila. 1862, p. 187; *Mabuia cepedei* Gray, Cope, Journ. Acad. Phila., 1875, p. 116, et operibus omnibus herp. Mex. et Amer. Cent., *Scincus agilis* Raddi; *S. bistratus* et *ni-gropunctatus* Spix; *Mabuia anea* Gray.

Panama, Veragua, Peters; Guatemala, *Mission Scientifique*; Mexico, *Sumichrast*; E. Costa Rica, Gabb; Peten, Guatemala, Berendt; Belize, Mechling; Tehuantepec, *Sumichrast*; Colima, Xantus.

*Eumeces* Wiegmann.

Herp. Mex., 1834, p. 36; *Eumeces* et *Plestiodon* Dum. et Bibr., Erp. Gén., v, pp. 629-697; Gray, Catal. Brit. Mus., 1845, p. 90, 92.

**EUMECES DUGÉS** Thominot; Bull. Société Philomathique, Paris, 18. Michoacan *Dugés*; Zacualtipan, *Bernad*.

**EUMECES BREVIROSTRIS** Günther, Bocourt, Miss. Sci. au Mex., p. 439, pl. xxii A, fig. 7, xxii E, fig. 1; *Mabuia brevirostris* Günther, Proc. Zool. Soc. Lond., 1860, p. 316; *Plestiodon lynxe* Cope, Proc. Acad. Phila., 1865, 197.

Vera Cruz and Tehuantepec, *Sumichrast*; Oaxaca, *Sallé*; valleys of Mexico or Toluca, *Hooge*.

**EUMECES LYNXE** Wiegmann, Herp. Mex., 1834, p. 36. Guanajuato, *Dugés*.

**EUMECES FURCIROSTRIS** Cope, Proc. Amer. Philos. Soc., 1884, p. 169. Jalapa, *Flohr*, *Comision Geográfica*.

**EUMECES SUMICHRASTII** Cope, Proc. Acad. Phila., 1866, p. 321. Orizaba, Vera Cruz, *Sumichrast*; Potrero, Tierra Caliente of Vera Cruz, *Sumichrast*.

**EUMECES OBSOLETUS** Baird Girard; Cope, Check-list Batr. Rept. N. Amer.; *Plestiodon obsoletus* Baird and Girard, Proc. Acad. Phila., 1852, 159. City of Chihuahua, *Wilkinson*.

**EUMECES SCHWARTZEL** Fischer, Herpetologische Bemerkungen, p. 1; Abhandlung. Naturwissenschaftlich. Vereins Hamburg-Altona, B., viii, Abth. i, Hamburg, 1884.

Island in Laguna Términos, Campechi Bay, *Fischer*.

**EUMECES CALLICEPHALUS** Bocourt, Miss. Sci. Mex., p. 431, pl. xxii D 2, xxii E 2. Guanajuato, *Dugés*; San Blas, *Dugés*.

*Gymnophthalmus* Merr.

Tent. Syst. Amph., p. 74; *Epaphelus* Cope, Journ. Acad. Phila., 1875, p. 115.\*

**GYMNOPHTHALMUS LÉVICAUDUS** Cope; *Tretioscincus lèvicaudus* Cope, Report Peabody Acad. Sci., 1869, p. 80; Proc. Amer. Philos. Soc., 1870, p. 557. *Epaphelus sumichrasti* Cope, Journ. Acad. Phila., II, viii, 1876, p. 115. *Gymnophthalmus sumichrasti* Bocourt, Miss. Sci. Mex.. Rept., p. 471, pl. xx H, fig. 2. West Coast of Tehuantepec, *Sumichrast*; W. Nicaragua, *MacNeil*.

\* This name was proposed on the supposition that the *G. maximiliani* R. and L. (=*G. quadrilineatus* Wied.) really belongs to *Gymnophthalmus*. This has been subsequently shown not to be the case, and it has been accordingly referred to a new genus under the name *Microblepharus* Boett., and the *G. lèvicaudus* remains in *Gymnophthalmus*.

**Blepharactisis Hallow.**

Proc. Acad. Phila., 1860, p. 484.

BLEPHARACTISIS SPECIOSA Hallow., loc. cit., p. 484.

Nicaragua, Stimpson (teste Hallowell).

**ANELYTROPIDÆ.****Anelytropsis Cope.**

Proc. Amer. Philos. Soc., 1885, p. 380.

ANELYTROPSIS PAPILLOSUS Cope, loc. cit., fig. 9.

Jalapa, Comision Geográfica Exploradora.

**AMPHISBÆNIA.****CHIROTIDÆ.****Chirotes Duméril.**

CHIROTES CANALICULATUS Lacép.

Cape Saint Lucas, Lower California, Xantus.

**OPHIDIA.**The families of snakes are distinguished by the following osteological characters:<sup>1</sup>

- A. Opisthotic intercalated in the cranial walls (*Angiostomata*).
  - \* No ectopterygoid; palatines bounding choanæ posteriorly; ethmoturbinal forming part of roof of mouth; rudiments of pelvis (*Scoleco-phidia*).<sup>2</sup>
  - I. Maxillary bone fixed to prefrontal and premaxillary; a pubis.....CATODONTA.<sup>3</sup>
  - II. Maxillary bone vertical and free from all others; no pubis.....EPANODONTA.<sup>4</sup>
  - \*\* An ectopterygoid; palatines not bounding choanæ posteriorly.
- III. Maxillary bone free, horizontal .....TORTRICINA.
- † A coronoid bone.
  - α. Rudimentary posterior extremities .....*Tortricidae* Müller.
  - αα. No rudiments of posterior extremities .....*Uropeltidae* Müller.
- B. Opisthotic attached scale-like to cranial walls, and produced freely. Ectopterygoid present (*Eurytomata*).
- IV. Maxillary bone horizontal, in contact with the premaxillary, and furnished with solid teeth. No rudiments of pelvis.....ASINEA.
- α. Rudiments of posterior extremities (*Peropoda*).
  - β. Coronoid bone present.
- Supraorbital and postorbital bones and premaxillary teeth present..*Pythonidae* Cope.
- No supraorbitals or premaxillary teeth; postorbitals present.....*Boidæ* Cope.
- ββ. No coronoid bone.
- No supraorbitals nor postorbitals nor premaxillary teeth.....*Charinidae* Cope.
- αα. No rudiments of posterior extremities (*Colubroidea*).
- β. Coronoid bone present.

<sup>1</sup> This arrangement was first published by the writer in the Proceedings of the Philadelphia Academy for 1864, p. 230. The definitions of the lower primary divisions were derived from J. Müller.

<sup>2</sup> The characters of this division as I originally gave them (Proceedings Academy Philadelphia, 1864, p. 230) were derived from J. Müller, which have been shown to be partially erroneous by Duméril and Bibron, and Peters.

<sup>3</sup> Includes only the family *Stenostomidae*.

<sup>4</sup> One family, the *Typhlopidae*.

No postorbital or supraorbital bones; premaxillary teeth present. *Xenopeltidae* Cope.

β. No coronoid bone.

β. Postorbital bone produced over the superciliary region.

No gastrosteges. .... *Acrochordidae* Cope.

Gastrosteges present. .... *Nothopidae* Cope.

ββ. Postorbital bone not extending over the superciliary region.

δ. Nostril in or between nasal plates. .... *Colubridae* Auct.

ε. Vertebral hypapophyses confined to the anterior part of the column, *Natricinae*.

εε. Vertebral hypapophyses extending throughout the column, *Colubrinae* Cope.

δδ. Nostril in the rostral plate. .... *Acontiohidae* Gthr.

V. Os maxillare horizontal, thickened in front, and not reaching the premaxillary anteriorly, and bearing a perforate tooth. *PROTEROGLYPHA*.

α. Caudal hypapophyses bifid; caudal neural spines and pleurapophyses short. Postfrontal bones wanting; fang grooved. .... *Elapidae* Cope.

Postfrontals present; fang grooved. .... *Najidae* Cope.

Postfrontals present; fang not grooved. .... *Dendraspididae* Gthr.

αα. Caudal hypapophyses simple; caudal neural spines and pleurapophyses elongate.

A postfrontal bone. .... *Hydrophidae* Gthr.

VI. Maxillary bone vertical, not reaching premaxillary, articulating with the prefrontal by a ginglymus, and to the ectopterygoid without imbrication, and bearing a perforated tooth. .... *SOLENOGLYPHA*.

Maxillary bone not excavated; fang not grooved in front; no postfrontal bone, *Atractaspididae* Gthr.

Maxillary bone not excavated; fang grooved in front; a postfrontal. .... *Causidae* Cope.

Maxillary bone not excavated; fang not grooved; a postfrontal. .... *Viperidae* Grey.

Maxillary bone excavated by a large chamber; fang not grooved in front; a postfrontal. .... *Crotalidae* Gray.

In the following pages I present synoptical diagnoses of the genera of the Ophidia arranged in key form. These are placed under subfamily heads which are not, with the exception of the Homalopsinae, defined. It is not certain, therefore, that their contents are in all cases properly limited or distributed. It remains a desideratum to discover the characters of the natural divisions of the Colubridæ, if any there be. The characters presented by Duméril and Bibron, and by Günther, are important but insufficient. For the definition of the genera distinct characters exist, although the subject is one of much difficulty. The object of definition being, as I imagine, precision and the consequent increased facility of determination, I have employed all structural characters whatever, and only neglected them where it is evident that they are inconstant within the limits of a species. I find of the greatest importance the grooved or non-grooved characters of the posterior teeth, and the absence or number of the scale-pits. The division or non-division of the anal scutum is also of much importance, although in a very few genera (e. g., *Xenodon*) it is not constant. Relying, as the system always must, on exact characters, I have not allowed considerations of "physiognomy" to change a result where it conflicts with structure, which is, however, rarely the case. The tendency of some authors to neglect characters and to depend on "physiognomy" destroys precision and explains nothing, besides rendering identification of species most laborious, resting as it must in that case on purely empirical methods. I also do not use as generic characters the number of rows of scales, or of labial scuta, or the size of the eye, believing that these are only available in the distinction of species.

In a few instances I have not been able to examine the skeletons of genera of doubtful position, so that their reference to a family division may yet have to be altered. I have, however, studied the fine series in the museums of Paris and Washington.

ton, besides a considerable number in my own collection. For the characters of many genera which I have not seen I have had to rely on the descriptions of others, especially of Drs. Peters and Günther.

## EPANODONTA.

## TYPHLOPIDÆ.

## I. Muzzle covered above by rostral and internasal scuta.

α. Two ocular plates and a preocular.

One nasal plate..... *Letheobia* Cope.

αα. One ocular and a preocular.

One nasal plate..... *Typhlops* Schn.

Two nasal plates..... *Helminthophis*<sup>1</sup> Pet.

ααα. One ocular and no preocular.

One nasal plate..... *Typhlina*<sup>2</sup> Wagl.

Two nasal plates..... *Liophlops*<sup>3</sup> Pet.

## II. Muzzle and front with five symmetrical scuta.

Two nasals and a preocular..... *Anomalepis* Jan.

## CATODONTA.

## STENOSTOMIDÆ.

Superciliary scales present..... *Stenostoma* Wagl.

No superciliary scales..... *Rena* B. & G.<sup>4</sup>

## TORTRICINA.

## TORTRICIDÆ.

Intermaxillary bone dentate; eye covered by a single scute..... *Tortrix* Oppel.

Intermaxillary edentulous; eye surrounded by distinct scales..... *Cylindrophis* Wagl.

## UROPELTIDÆ.

## I. Tail terminating in a large shield.

Rostral plate produced posteriorly, separating the nasals..... *Rhinophis* Hemp.

Rostral not produced; nasals in contact..... *Uropeltis* Cuv.

## II. Tail scaly to end.

Tail terminating in a disk of keeled scales; supraorbitals and postocular confluent.

*Silybura* Gr.

Tail compressed, truncated, terminating in a bicuspid scale, the points superposed; postocular distinct..... *Plectrurus* D. & B.

Tail tapering, terminal scute ending in a horizontal ridge; no chin-groove.

*Platyplectrurus* Günth.

Tail tapering, ending in a single point; no chin-groove..... *Teretrurus* Bedd.

Tail with smooth scales, terminating in one or two points; postocular united with superciliary; a median chin-groove..... *Melanophidium* Gthr.

## ASINEA.

## XENOPELTIDÆ.

Eyes not covered with a plate; head with normal shields, with an interparietal added; scales smooth; anal and subcaudals divided; teeth equal..... *Xenopeltis* Reinw.

<sup>1</sup>*Idiophlops* Jan.

<sup>2</sup>*Pilioides* Dum. Bibr. *Typhlinalis* Gray.

<sup>3</sup>*Rhinophlops* Pet.

<sup>4</sup>*Qatodon* D. & B., not of Lacep. *Siagonodon* Peters.

## PYTHONIDÆ.

## I. Premaxillary teeth present.

$\alpha$ . Fossæ in labial plates of both jaws.

Scuta on end of muzzle only ..... *Morelia* Gray.

Scuta extending to between orbits ..... *Python* Daudin.

Scuta covering vertex and muzzle ..... *Liasis*<sup>1</sup> Gray.

$\alpha\alpha$ . Fossæ in inferior labials only.

Muzzle shielded to frontal region ..... *Nardoa* Gray.

$\alpha\alpha\alpha$ . No labial fossæ.

Head shielded; tail prehensile ..... *Aspidiotes* Krefft.

Head with nine regular shields above; rostral plate protuberant; tail not prehensile ..... *Loxocemus* Cope.

II. No premaxillary teeth.<sup>2</sup>

Labial plates with fossæ; vertex and front squamous; nostril in one nasal; scales smooth ..... *Chondropython* Meyer.

Head covered with large scuta ..... *Aspidopython* Meyer.

## BOIDÆ.

## I. Tail prehensile.

$\alpha$ . Scales smooth.

$\beta$ . Labial fossæ present.

Plates on muzzle only ..... *Xiphosoma*<sup>3</sup> Wagl.

Plates extending over muzzle and front ..... *Epicrates*<sup>4</sup> Wagl.

$\beta\beta$ . No labial fossæ.

Muzzle and front scaled; nasal plates meeting ..... *Lichanura* Cope.

Muzzle and front scaled; nasal plates widely separated ..... *Boa*<sup>5</sup> Linn.

Muzzle and front scutate; nares vertical ..... *Eunectes* Wagl.

Muzzle and front with scuta divided on the median line; nares lateral.

*Chilabothrus*<sup>6</sup> D. & B.

Muzzle and front with median scuta; nares lateral ..... *Unguialophis* Meyer.

$\alpha\alpha$ . Scales carinate.

Top of head with symmetrical plates; nares between two ..... *Unguialia*<sup>7</sup> Gray.

Top of head with symmetrical plates; nares in a single plate ..... *Bolieria*<sup>8</sup> Gray.

Plates on muzzle only ..... *Casarea*<sup>9</sup> Gray.

Top of head scaly; rostral plate forming border of mouth ..... *Enygrus* Wagl.

Top of head scaly; labial plates meeting below rostral plate ..... *Trachyboa* Pet.

## II. Tail not prehensile.

$\alpha$ . Palatine teeth well developed.

$\beta$ . Rudiments of hind limbs visible.

A mental groove ..... *Gonglyophis* Wagl.

No mental groove ..... *Eryx*<sup>10</sup> Daud.

$\beta\beta$ . No visible rudiments of hind limbs.

Scales keeled; head very distinct ..... *Erebophis* Gthr.

$\alpha\alpha$ . Palatine teeth none (Peters).

Scales smooth; top of head with symmetrical plates to between orbits; one nasal.

*Calabaria*<sup>11</sup> Gray.

<sup>1</sup> *Liophyton* Hubrecht

<sup>2</sup> Teate Boulenger.

<sup>3</sup> *Corallus* and *Chryseus* Gray.

<sup>4</sup> *Epicarrius* Fisch.

<sup>5</sup> *Acrantophis* Jan.

<sup>6</sup> Includes *Homalochilus* Fisch.; *Pelophilus* D. & B. (= *Sanzinia* Gray); *Dendrophilus* Jan. and *Pies-gaster* Soane.

<sup>7</sup> *Tropidophis* D. & B. *Notophis* Hallow.

<sup>8</sup> *Platygaster* D. & B.

<sup>9</sup> *Leptoboa* D. & B.

<sup>10</sup> *Cusoria* Gray.

<sup>11</sup> *Rhoptrura* Peters; may belong to the Charinidæ.

## CHARINIDÆ.

Head scutate above; scales smooth; tail not prehensile; palatine teeth.

*Charina*<sup>1</sup> Gray.

## ACROCHORDIDÆ.

Body compressed, acute below ..... *Chersydrus* Cuv.  
Body round, flat below ..... *Acrochordus* Hornst.

## NOTHOPSIDÆ.

Scales above granular, with rows of tubercular scales; urosteges simple; no frontal or pariétal plates ..... *Xenodermus* Rhdt.  
Scales squamous; urosteges double; head scaly, with frontal and pariétal plates.

*Nothopsis* Cope.

## COLUBRIDÆ.

Head conic, not distinct from the body, which is cylindric and rigid... *CALAMARINÆ*.  
Head slightly distinct, short; teeth entire, not enlarged in front.... *CORONELLINÆ*.  
Head similar to last; posterior tooth grooved ..... *SCYTALINÆ*.  
Head more distinct and elongate, body and tail longer; teeth entire, not longer in front ..... *NATRICINÆ*.  
Like the last, but grooved teeth posteriorly ..... *PHILODRYADINÆ*.  
Very slender; pupil horizontal; grooved teeth ..... *DRYOPHIDINÆ*.  
Less slender; not compressed; middle teeth elongate, posterior teeth grooved.

*PSAMMOPHIDINÆ*.

Anterior maxillary and mandibular teeth enlarged ..... *LYCODONTINÆ*.  
Anterior teeth not abruptly enlarged, posterior grooved; head wide, very distinct, body compressed ..... *DIPSADINÆ*.  
Anterior teeth not abruptly enlarged, the posterior weak and not grooved; head very distinct from the body, which is compressed; no œsophageal teeth ..... *LEPTOGNATHINÆ*.  
Maxillary teeth few and rudimental; body slender; hypapophyses piercing throat, and capped with enamel ..... *DASYPELTINÆ*.  
Hypapophyses spinous to caudal region; anterior teeth not enlarged; body not slender; head distinct ..... *Colubrina*.

## CALAMARINÆ.

## I. Posterior maxillary tooth grooved.

\* Subcaudal scuta.

One nasal; anal undivided ..... *Uriechis*<sup>2</sup> Pet.  
Two nasals; anal divided ..... *Ceroocalamus* Gthr.

\*\* Subcaudal scutella.

† No internasals.

One nasal, no preocular ..... *Amblyodipsas* Pet.  
One nasal, a preocular ..... *Apostolepis* Cope.

†† Two internasals; prefrontals united together.

One nasal; a preocular ..... *Phalotris* Cope.  
††† Internasals united with nasals.

Postnasal distinct, anal divided ..... *Stenorhina* D. & B.  
†††† Two internasals and two prefrontals.

α. Nasal plate single.

No preocular; no loreal ..... *Calamolaps*<sup>3</sup> Gthr.  
A preocular; rostral not prominent ..... *Elapomorphus*<sup>4</sup> Wieg.

<sup>1</sup> *Wenona* B. & G.

<sup>2</sup> *Polemon* Jan.

<sup>3</sup> *Micrelaps* Boëtg.

<sup>4</sup> *Urobelus* Rhdt.

<b>A</b> preocular; rostral prominent.....	<i>Ogmius</i> Cope.
$\alpha\alpha$ . Two nasal plates.	
$\beta$ . Two anal scuta.	
No preocular; a loreal .....	<i>Enulius</i> <sup>1</sup> Cope.
<b>A</b> preocular; no loreal .....	<i>Tantilla</i> <sup>2</sup> B. & G.
<b>A</b> preocular and loreal, tail smooth .....	<i>Hydrocalamus</i> Cope.
<b>A</b> preocular and loreal, tail short, rugose .....	<i>Procinura</i> Cope.
$\beta\beta$ . One anal scutum.	
<b>A</b> loreal and preocular; tail smooth .....	<i>Scolecophis</i> Cope.
II. Posterior maxillary teeth smooth.	
* Subcaudal scuta.	
† Internasals united.	
Scales smooth .....	<i>Aspidura</i> Wagl.
Scales keeled .....	<i>Haplocercus</i> Gthr.
†† Internasals and prefrontals distinct.	
$\alpha$ . Rostral not produced.	
Postoculars not distinct from temporals; one nasal; loreal joined to preocular.	
<i>Achalinus</i> Pet.	
Postocular, preocular, and two nasals .....	<i>Elapops</i> <sup>3</sup> Gthr.
$\alpha\alpha$ . Rostral produced.	
Two nasals and a loreal and preocular .....	<i>Rhinochilis</i> B. & G.
** Subcaudal scutella.	
† Nasal scuta well developed.	
‡ No internasal scuta.	
Rostral plate produced.	
Prefrontals separated by rostral; nasals and first labial confluent .....	<i>Pictimia</i> Gray.
Prefrontals in contact; nasal distinct; rostral little produced .....	<i>Conopsis</i> Gthr.
Rostral much produced .....	<i>Rhynchohyx</i> <sup>4</sup> Pet.
Rostral not produced.	
Nasal confluent with first labial; preocular and loreal distinct .....	<i>Sympolius</i> <sup>5</sup> Cope.
Nasal distinct; loreal and preocular united .....	<i>Geophidium</i> <sup>6</sup> Pet.
‡‡ One internasal scutum.	
Prefrontals united.	
Rostral much produced .....	<i>Ligonirostra</i> <sup>7</sup> Cope.
Two prefrontals (rostral not produced).	
Scales keeled; no preocular, two anals .....	<i>Haldea</i> <sup>8</sup> B. & G.
Scales keeled; no loreal; a preocular; anal double .....	<i>Falconeria</i> Theob.
Scales smooth; no preocular; two anals .....	<i>Farancia</i> Gray.
Scales smooth; no loreal; a preocular .....	<i>Pseudoeryx</i> <sup>9</sup> Fitz.
Scales smooth; no loreal nor preocular; one anal; (? teeth) .....	<i>Calamophis</i> Meyer.
Two internasals; one prefrontal.	
Rostral much produced .....	<i>Prosymna</i> Gray.
Rostral not produced, teeth equal .....	<i>Trimetopon</i> Cope.
Rostral not produced, teeth diacrantician .....	<i>Colorhogia</i> Cope.
Two internasals and two prefrontals.	
§ Rostral plate reaching frontal.	
Nasals and first labial confluent .....	<i>Gyalopium</i> Cope.
Rostral plate not reaching frontal.	
$\alpha$ . Posterior maxillary teeth elongate.	
Two nasals well separated from preocular .....	<i>Arrhyton</i> Gthr.

<sup>1</sup> Not of Bocourt Miss. Sci. Mex.<sup>6</sup> *Xylophis* Bedd.<sup>2</sup> *Homalocranium* D. & B.<sup>7</sup> *Tennorhynchus* Smith.<sup>3</sup> *Pariaspis* Cope.<sup>8</sup> *Conacephalus* D. & B.<sup>4</sup> *Xenocalamus* Gthr.<sup>9</sup> *Dimades* Gray. *Calopisma* D. & B. *Hydrops* Wagl.<sup>5</sup> *Chilorrhina* Jan.

Two nasals in contact with frenoocular.....	<i>Leptocalamus</i> Gthr.
$\alpha\alpha$ . Teeth equal.	
$\beta$ . Superciliary plate absent.	
Two nasals and a freno $\ddot{o}$ rbita.....	<i>Colophrys</i> Cope.
$\beta\beta$ . Superciliary present.	
$\gamma$ . Rostral plate produced.	
$\delta$ . Nasal plates distinct.	
No loreal; anal divided; two nasals.....	<i>Geagras</i> <sup>1</sup> Cope.
A loreal; anal entire; two nasals.....	<i>Cemophora</i> Cope.
A loreal; anal divided; one nasal.....	<i>Chionactis</i> <sup>2</sup> Cope.
$\delta\delta$ . Nasal plates united with internasals.	
A preocular and a divided anal.....	<i>Chilomeniscus</i> <sup>3</sup> Cope.
$\gamma\gamma$ . Rostral plate not produced.	
$\varepsilon$ . Palatine bones with teeth.	
$\eta$ . One nasal plate; one anal plate.	
Scales smooth.....	<i>Homalosoma</i> <sup>4</sup> Wagl.
$\eta\eta$ . One nasal and two anal plates.	
Loreal and preocular present.....	<i>Contia</i> <sup>5</sup> B. & G.
Loreal present, no preocular.....	<i>Abastor</i> <sup>6</sup> Gray.
Neither loreal nor preocular.....	<i>Oxyrrhos</i> <sup>7</sup> Fischer.
$\eta\eta\eta$ . Two nasal, one anal plate.	
Maxillary bone very slender; scales smooth; a freno $\ddot{o}$ rbita plate,	<i>Stenognathus</i> <sup>8</sup> D. & B.
Maxillary more robust; scales smooth; a freno $\ddot{o}$ rbita plate.....	<i>Rhabdonna</i> <sup>9</sup> D. & B.
Maxillary more robust; scales keeled; a freno $\ddot{o}$ rbita plate.....	<i>Elapoides</i> <sup>10</sup> Boie.
$\eta\eta\eta\eta$ . Two nasal and two anal scuta.	
A loreal; no preocular; two pairs geneials.....	<i>Virginia</i> B. & G.
A loreal; no preocular; one pair geneials.....	<i>Adelphicus</i> <sup>11</sup> Jan.
A loreal and a preocular; two pairs geneials.....	<i>Sonora</i> B. & G.
No loreal; a preocular; jaws weak.....	<i>Brachyrrhos</i> Kuhn
$\varepsilon\varepsilon$ . Palatine bones without teeth.	
Two anals and nasals; a loreal and a preocular.....	<i>Oligodon</i> Boie.
Two anals and nasals; a loreal and no preocular.....	<i>Colobognathus</i> Pet.
† Nasal scutum minute.	
No internasals; preoculars present.....	<i>Calamaria</i> Boie.
Two internasals; a preocular.....	<i>Pseudorhabdium</i> Jan.
Two internasals; no preocular.....	<i>Oxyacalamus</i> Cant.
†† No nasal scutum.	
No loreal, nor pre- nor postocular.....	<i>Typhlogeophis</i> Günth.

## CORONELLINE.

I. No palatine teeth.	
Anal two; one internasal; scales smooth.....	<i>Tripeltis</i> <sup>12</sup> Cope.
Anal plate divided; two internasals; scales smooth.....	<i>Oligodon</i> <sup>13</sup> Boie.

<sup>1</sup> *Enulius* Boc. *Sphenocalamus* Fisch. *Pseudofascimia* Boc.<sup>2</sup> *Lamprosoma* Hallow.<sup>3</sup> *Bergenia* Steindachner.<sup>4</sup> *Rhabdium* D. & B.<sup>5</sup> *Cryptodacnus* Peters. *Eirenis* Jan.<sup>6</sup> *Carphophiops* Gerv. *Carphophis* D. & B. *Celuta* B. & G.<sup>7</sup> 1879; *Actaecephalus* Sauv. ? 1880.<sup>8</sup> *Platypteryx* D. & B.<sup>9</sup> *Rhabdium* D. & B.<sup>10</sup> *Geophis* Wagl. *Catastoma* Wagl.<sup>11</sup> *Rhabdonna* Boc. not D. & B. *Rhegnops* Cope.<sup>12</sup> Gen. nov. type *Oligodon brevicauda* Gthr.<sup>13</sup> ? *Rhynchocalamus* Gthr.



## SCYTALINÆ.

$\alpha$ . Anterior teeth elongate.

Scales smooth; rostral plate obtuse ..... *Macroprotodon* Guich.

$\alpha\alpha$ . Anterior teeth short.

$\beta$ . Rostral plate not protuberant.

$\gamma$ . Two rows of subcaudal scutella.

$\delta$ . Anal plate entire.

$\epsilon$ . Vertebrae with expanded neural spines.

Prefrontals united; a loreal; scales smooth ..... *Gerrhosteus* Cope.

$\epsilon\epsilon$ . Vertebrae with narrow compressed neural spines.

Scale-pits double; pupil erect; rostral plate normal; two prefrontals,

*Oxyrrhopus*<sup>1</sup> Wagl.

Rostral plate normal; one nasal plate; two prefrontals ..... *Tomodon* D. & B.

Rostral plate separating internasals; scale pores single; two prefrontals,

*Trimerorhinus*<sup>2</sup> Smith.

$\delta\delta$ . Anal plate double.

$\epsilon$ . Scales smooth.

No scale-pits; tail short; rostral obtuse; nasals two; pupil round,

*Erythrolamprus*<sup>3</sup> Boie.

One scale-pit; loreal not in orbit; rostral obtuse; nasals two; pupil round,

*Tachymenis* Wiegem.

Loreal entering orbit; pupil erect; rostral obtuse; nasals two ..... *Tarphophis*<sup>4</sup> Fleisch.

One nasal plate; no scale-pits; rostral truncate; pupil erect ..... *Manolepis*<sup>5</sup> Cope.

$\epsilon\epsilon$ . Scales keeled.

Pupil erect; anal double ..... *Dryophilax* Wagl.

$\gamma\gamma$ . One row of subcaudal scuta.

Two preoculars; head distinct; body compressed ..... *Ditypophis* Gthr.

Two preoculars; body round; head not distinct ..... *Hologerrhum* Günth.

One preocular; body round ..... *Scyale*<sup>6</sup> Boie.

$\beta\beta$ . Rostral plate protuberant.

$\gamma$ . Rostral not recurved.

Loreal not entering orbit; pupil round; two nasal plates; rostral moderate,

*Conophis* Pet.

Scales not grooved; rostral very prominent ..... *Rhamphophis* Pet.

Scales grooved; rostral prominent ..... *Rhagerhis* Pet.

$\gamma\gamma$ . Rostral plate recurved.

One row of subcaudal scuta ..... *Phimophis*<sup>7</sup> Cope.

Two rows of subcaudal scutella ..... *Rhinostoma* Wagl.

## NATRICINÆ.

$A$ . Posterior maxillary teeth not abruptly longer than those that precede them.

1. Rostral plate expanded transversely and with free lateral borders.

Several preoculars; scales smooth; anal and subcaudals double ..... *Salvadora*<sup>8</sup> B. & G.

2. Rostral plate not expanded and free laterally.

\* Two median dorsal rows of scales.

One preocular plate ..... *Herpetodryas*<sup>9</sup> Boie.

Two preocular plates ..... *Zaöcys* Cope.

\*\* One median dorsal row of scales.

† Body little or not compressed.

‡ Internasals not confluent with nasals.

$\alpha$ . Several loreal plates.

<sup>1</sup>Includes *Brachyrhynchus* D. & B.

<sup>4</sup>*Oligosoma* Cope.

<sup>2</sup>*Psammophylax* (Fitz) Günther.

<sup>5</sup>*Rhinostomus* D. & B. preoccupied

<sup>3</sup>*Coniophanes* Hallow.

<sup>6</sup>Preoccupied in botany, hence *Phimophis* Cope.

<sup>4</sup>Günther says (Catal. Brit. Mus., p. 33) "anal bifid."

<sup>7</sup>*Phyllosira* Cope.

<sup>5</sup>Type *Tomodon nasutus* Cope.

Two or more preoculars.....	<i>Ptyas</i> Cope.
$\alpha\alpha$ . One loreal (rarely two).	
$\beta$ . Four or more prefrontals.	
Anal entire; scales keeled .....	<i>Pityophis</i> Holbr.
$\beta\beta$ . Two prefrontals only.	
$\gamma$ . Two nasal plates.	
$\delta$ . Anal entire.	
Scales smooth; rostral produced.....	<i>Rhinechis</i> <sup>1</sup> Mich.
One preocular; rostral not produced .....	<i>Spilotes</i> <sup>2</sup> Wagl.
$\delta\delta$ . Anal double.	
$\varepsilon$ . One preocular.	
Form robust; scales without pits; tail moderate .....	<i>Grayia</i> <sup>3</sup> Gthr.
Form robust; tail moderate; two scale-pits .....	<i>Natrix</i> <sup>4</sup> Laur.
Like <i>Coluber</i> , but median dorsal row of scales much enlarged.....	<i>Xenelaphis</i> Gthr.
Form elongate; tail long; two scale-pits.....	<i>Drymobius</i> <sup>5</sup> Cope.
Form very slender; tail very long .....	<i>Dendrophis</i> Boie.
$\varepsilon\varepsilon$ . Two preoculars.	
Scales keeled .....	<i>Elaphis</i> Aldv.
Scales smooth .....	<i>Bascanium</i> <sup>6</sup> B. & G.
$\gamma\gamma$ . One nasal plate.	
Scales keeled; a loreal plate .....	<i>Cyclophis</i> <sup>7</sup> Gthr.
Scales smooth; a loreal plate.....	<i>Liopeltis</i> Cope.
Scales smooth; no loreal.....	<i>Phragmitophis</i> Gthr.
†† Internasals confluent with nasals.	
Scales smooth with one pit; anal divided.....	<i>Syphimus</i> Cope.
†† Body much compressed.	
One nasal plate; a frenoörbital.....	<i>Dryocalamus</i> Gthr.
Two nasals; a frenoörbital; teeth equal .....	<i>Odontomus</i> <sup>8</sup> D. & B.
Two nasals; loreal and preocular distinct.....	<i>Gonyosoma</i> Wagl.
One nasal; a loreal; scales keeled; teeth equal .....	<i>Phyllophis</i> Gthr.
AA. Posterior maxillary tooth abruptly longer than those which precede it.	
$\alpha$ . Maxillary tooth series uninterrupted (one preocular).	
$\beta$ . Moderately elongate.	
Scales smooth; two nasals; a frenoörbital.....	<i>Nymphophidium</i> Gthr.
Scales keeled; one loreal; one preocular .....	<i>Herpetoreas</i> Gthr.
$\beta\beta$ . Very slender.	
$\gamma$ . Anal double.	
Scales keeled; no loreal .....	<i>Leptophis</i> <sup>9</sup> Bell.
Scales keeled; a loreal.....	<i>Hapsidophrys</i> Fisch.
Scales smooth; a loreal .....	<i>Philothamnus</i> <sup>10</sup> Smith.
$\gamma\gamma$ . Anal single.	
Scales smooth; a loreal .....	<i>Chlorophis</i> <sup>11</sup> Hallow.
$\alpha\alpha$ . A toothless space in front of the long maxillary tooth.	
$\beta$ . One preocular; anal double.	
$\gamma$ . Form very elongate.	

<sup>1</sup> *Arizona* Kenn.<sup>2</sup> *Cynophis* Gray. *Compsosoma* D. & B. *Cælognathus* Fitz. *Geophis* Steind.<sup>3</sup> *Heteronotus* Hallow., nom. præocc. hinc *Glaniolestes* Cope. *Lejonotus* Jan.<sup>4</sup> Spec. Syn. Rept. 1768, p. 73; Cope; *Calopeltis* Bp., 1840; *Scotophis*, B. & G., 1853; *Coluber* Linn., Günther, 1858.<sup>5</sup> *Dendrophidium* Cope; *Xenurophis* Gthr.<sup>6</sup> *Coluber* Dum., Garm.; *Masticophis* B. & G.<sup>7</sup> *Ophiodryas* Fitz, Cope. *Philophyllophis* Garm.<sup>8</sup> *Hydrophobus* Gthr.<sup>9</sup> *Ahaetulla* Gthr. *Thrasops* Hallow.<sup>10</sup> *Rhamnophis* Gthr. *Gastropyxis* Cope.<sup>11</sup> *Herpetæthiops* Gthr.

A loreal; scales smooth.....	<i>Uromacer</i> D. & B.
$\gamma\gamma$ . Form moderately elongate.	
A loreal; scales smooth, with two pits.....	<i>Alsophis</i> Cope.
No loreal; scales smooth.....	<i>Ocyophis</i> <sup>1</sup> Cope.
$\beta\beta$ . Two or more preoculars.	
Orbit resting on labials; one loreal; two anals; two scale-pits.....	<i>Zamenis</i> Wagl.
Orbit surrounded by scales; anal single; two scale-pits; one loreal.....	<i>Periops</i> Wagl.
Orbit surrounded by scales; two or more loreals; anal single; two scale-pits.	
$\gamma\gamma$ . Two or more preoculars.	<i>Chilolepis</i> <sup>2</sup> Cope.
"Numerous small scales occupying the place of the frontals;" eye resting on scales.	<i>Spalerosophis</i> Jan.
Orbit resting on labials; two anals; one scale-pit.....	<i>Tyria</i> <sup>3</sup> Cope.
One anal; no scale-pits.....	<i>Zamenophis</i> Gthr.

## PHILODRYADINÆ.

A. Body rounded, not compressed.	
$\alpha$ . Scales grooved.	
Crown and lores grooved; one nasal; two loreals.....	<i>Malpolon</i> <sup>4</sup> Fitz.
$\alpha\alpha$ . Scales smooth.	
Two loreals; middle teeth equal.....	<i>Dirrhox</i> <sup>5</sup> Cope.
One loreal; median teeth equal.....	<i>Philodryas</i> Wagl.
One loreal; median maxillary teeth long.....	<i>Jaltris</i> Cope.
$\alpha\alpha\alpha$ . Scales keeled.	
One loreal; median teeth equal.....	<i>Tropidodryas</i> Cope.
$\alpha\alpha$ . Body slender, compressed.	
$\alpha$ . Subcaudal scutella.	
Nostril normal; two nasals; two anals.....	<i>Chrysopelea</i> Boie.
Nostril round in a single nasal; two anals.....	<i>Ichthycyphus</i> Gthr.
Nostril semicircular, valvular.....	<i>Dromophis</i> Pet.
$\alpha\alpha$ . Subcaudal scuta.	
Anal divided.....	<i>Bucephalus</i> Sm.

## DRYOPHIDINÆ.

I. Middle maxillaries not elongate, posteriors grooved.	
$\alpha$ . An elongate nasal appendage.	
Nasal and scuta undivided; scales keeled.....	<i>Langaha</i> Brug.
$\alpha\alpha$ . No nasal appendage.	
Scales keeled.....	<i>Dryophis</i> <sup>6</sup> Boie.
Scales smooth.....	<i>Dryinus</i> Wagl.
II. Middle maxillaries elongate; posteriors grooved.	
$\alpha$ . An elongate nasal appendage.	
Pupil horizontal.....	<i>Passerita</i> Gray.
$\alpha\alpha$ . No elongate nasal appendage.	
A loreal plate; prenasals joined on the middle line.....	<i>Gephyrinus</i> <sup>6</sup> Cope.
A loreal plate; nasals not joined.....	<i>Tragops</i> Wagl.
No loreal plate; nasals separate.....	<i>Tropidococcyx</i> Gthr.

## PSAMMOPHIDINÆ.

Anal entire; a loreal.....	<i>Psammodynastes</i> Gthr.
Anal divided; a loreal.....	<i>Psammophis</i> Wagl.
Nostril in prenasal; no loreal.....	<i>Mimophis</i> Gthr.

<sup>1</sup>Type *Dromicus ater* Gosse.<sup>4</sup>*Cælopeltis* Wagl. *Taphrometopon* Brandt.<sup>2</sup>Type *Coluber clifordii* Schl.<sup>5</sup>*Thelotornis* Smith. *Cladophis* Dum.<sup>3</sup>Type *T. dahlii* Fitz.<sup>6</sup>Type *Dryophis fronticincta* Gthr.<sup>7</sup>*Callirhinus* Girard nec *Cuvierii*.

## LYCODONTINÆ.

I. Anterior maxillaries not isolated.

- α. Subcaudal scuta double.
- β. Dorsal scales of equal size.

Two nasals; nostril in the anterior; a loreal; body much compressed.. *Lycodryas* Gthr.

Two nasals; nostril between; body not compressed; lores plane .... *Boödon*<sup>1</sup> D. & B.

Two nasals; body not compressed; lores longitudinally grooved.

*Bothrophthalmus*<sup>2</sup> Schl.

Two nasals; nostril in the anterior..... *Lycocephidium*<sup>3</sup> Fitz.

One nasal; a loreal ..... *Metoporphina* Gthr.

- ββ. Dorsal scales of unequal size.

Vertebral series smooth; body compressed ..... *Hormonotus* Hallow.

Vertebral series smooth; body round ..... *Lamprophis* Fitz.

Vertebral series bicarinate; body round..... *Simocephalus*<sup>4</sup> Gray

- αα. Subcaudal scutella entire.

Two nasals; scales equal, smooth..... *Holuropholis* Dum.

II. Anterior maxillaries isolated.

- α. Subcaudals in two rows.
- β. Nareal region with a pit.

Scales smooth; anal entire..... *Bothrolycus* Gthr.

- β. No nareal pit.
- γ. Longest teeth at middle and posterior end of maxillary bone.

Two nasals; body round..... *Dinodon*<sup>5</sup> D. & B.

- γγ. Longest teeth at front of maxillary.

Scales keeled; two nasals; a loreal ..... *Ophites* Wagl.

Scales smooth; two nasals; a loreal ..... *Lycodon* Boie.

Scales smooth; two nasals; no loreal ..... *Tetragonosoma* Gthr.

Scales smooth; one nasal; a loreal ..... *Leptorhynaon* Gthr.

- αα. Subcaudal plates in one row.

Scales keeled ..... *Cercaspis* Wagl.

Scales smooth ..... *Cyclocorus* D. & B.

## LEPTOGNATHINÆ.

- α. Subcaudal scuta entire.

Teeth of equal length ..... *Anoplodipsas* Pet.

Teeth elongate posteriorly ..... *Dipsadoboa* Gthr.

Teeth longer anteriorly ..... *Amblycephalus* Kuhl.

- αα. Subcaudal scuta in two rows.
- β. A median geneial plate.

Maxillary bone very short; one nasal plate..... *Asthenodipsas* Pet.

Maxillary bone long; two nasal plates..... *Mesopeltis*<sup>6</sup> Cope.

- ββ. No median geneial plate.

Teeth equal; no internasals; two nasals ..... *Dipeltophis* Cope.

Teeth weak; equal; internasals; two nasals ..... *Leptognathus* D. & B.

Teeth longer in front; internasals; one nasal ..... *Pareas* Wagl.

## DIPSADINÆ.

I. Subcaudal scuta.

Parietal plates replaced by scales; other plates normal ..... *Pythonodipsas* Gthr.

II. Subcaudal scutella.

- α. No teeth anterior to the grooved maxillary.

Scales smooth..... *Opisthoplatus* Pet.

- αα. Median maxillary teeth not much shortened.

Nostril large, between two nasals and the internasal; vertebral scales larger,

*Rhinobothryum* Wagl.

<sup>1</sup> *Eugnathus* D. & B.<sup>2</sup> Belongs perhaps to Colubrinæ.<sup>3</sup> *Alopecium* D. & B.<sup>4</sup> *Heterolepis* Sun. *Diaphorolepis* Jan.<sup>5</sup> *Eumesodon* Cepe.<sup>6</sup> *Asthenognathus* Boc.

Two nasals inclosing nostril; body elongate, compressed; anal entire; vertebrals generally larger ..... *Dipos*<sup>1</sup> Laur.

Two nasals inclosing nostril; body less compressed; anal double; vertebral row not larger; one loreal ..... *Sibon*<sup>2</sup> Fitz.

No nasal; vertebrals equal ..... *Hemidipos*<sup>3</sup> Gthr.

$\alpha\alpha$ . Median maxillary teeth shortened.

Two nasals and two or more loreals; anal double; vertebrals equal, ..... *Trimorphodon* Cope.

## DASYPELTINAE.

No grooved maxillary tooth; no loreal plate; scales keeled; head very distinct, ..... *Dasypeltis*<sup>4</sup> Wagl.

A grooved maxillary tooth; a loreal plate; scales smooth; head little distinct, ..... *Elachistodon* Rhdt.

COLUBRINAE.<sup>5</sup>

## I. A grooved posterior maxillary tooth.

$\alpha$ . Scales keeled.

$\beta$ . One internasal plate.

Parietal plates undivided ..... *Homalopsis* Kuhl.

$\beta\beta$ . Two internasal plates.

Parietal plates subdivided ..... *Cerberus* Cuv.

$\alpha$ . Scales smooth.

$\beta$ . One internasal plate.

$\gamma$ . Gastrosteges with two keels.

Parietal plates subdivided ..... *Hipistes*<sup>6</sup> Gray.

$\gamma\gamma$ . Gastrosteges not keeled.

Nasal plates in contact behind rostral; eye resting on labial plates,

..... *Hypsirhina*<sup>7</sup> Wagl.

Nasal plates in contact; eye bounded below by scales ..... *Tachymenoides* Rhdt.

Nasal plates separate; eye on labials ..... *Fordonia*<sup>8</sup> Gray.

Nasal plates separate; eye bounded with scales below ..... *Cantoria*<sup>9</sup> Gird.

$\beta\beta$ . Two internasal plates.

Supraorbital and posterior labial plates subdivided; two anals ..... *Homalophis* Pet.

Nasals in contact behind rostral; parietals entire ..... *Ferania*<sup>10</sup> Gray.

Two pairs of prefrontals; nasal plates separate, undivided; eye on labials; anal double ..... *Heliophis* Müller.

## II. Posterior maxillary teeth not grooved.

    \* Scales keeled.

    † Dentition diacranterian.

One internasal plate; no scale-pits ..... *Helicops* Wagl.

Two internasals; no scale-pits ..... *Coluber*<sup>11</sup> Linn.

Two internasals; two scale-pits ..... *Bothrolytus*<sup>12</sup> Cope.

    †† Dentition syncranterian or longer behind.

    \* Muzzle with a pair of tentacular processes.

<sup>1</sup> *Boiga* Fitz. *Triglyphonodon* et *Himantodes* D. & B. *Eudipos* Gthr. *Toxocodryas* Hallow.

<sup>2</sup> *Crotaphopeltis* Fitz.

<sup>3</sup> *Chamaelortus* Gthr.

<sup>4</sup> *Rhachiodon* Jour. *Diodon* Owen. *Anodon* Smith.

<sup>5</sup> *Homalopsis* Cope, Proceedings Academy Philadelphia, 1864, p. 167.

<sup>6</sup> *Bitis* Gray.

<sup>7</sup> *Eurostus* D. & B. Pt. I *Phytolopis* Gray.

<sup>8</sup> *Gerarda* Gray. *Campylodon* D. & B.

<sup>9</sup> *Hydrodipos* Peters.

<sup>10</sup> *Trigonurus* D. & B. *Feranoides* Carleyle.

<sup>11</sup> Laurenti Spec. Synops. 1768, p. 94. *Amphiëma* D. & B.

<sup>12</sup> Gen. nov.; type *Amphiëma subminiatum* Reinwt.; second species *B. tigrinus* = *A. tigrinum* Boie.

One internasal plate; parietals undivided .....	<i>Herpeton</i> Lac.
** No tentacular processes.	
$\alpha$ . One internasal plate.	
No scale-pits.....	<i>Atretium</i> Cope.
$\alpha\alpha$ . Two internasal plates.	
$\beta$ . Two nasal plates.	
Anal plate divided; two scale-pits.....	<i>Tropidonotus</i> <sup>3</sup> Kuhl.
Anal plate single; no scale-pits.....	<i>Eutania</i> B. & G.
$\beta\beta$ . One nasal plate.	
Anal plate single; rostral produced laterally.....	<i>Stylocemus</i> <sup>3</sup> Cope.
Anal plate divided; rostral normal.....	<i>Amastridium</i> Cope.
†† Dentition isodont, or shorter behind.	
$\alpha$ . Anal plate divided.	
A loreal plate.....	<i>Regina</i> <sup>4</sup> B. & G.
No loreal plate.....	<i>Storeria</i> <sup>5</sup> B. & G.
$\alpha\alpha$ . Anal plate entire.	
$\beta$ . Two internasals, one prefrontal.	
$\beta\beta$ . Two internasals, two prefrontals.	
A loreal; two nasals; a preocular.....	<i>Chersodromus</i> Rhdt.
Head well distinguished; a loreal and preocular plates .....	<i>Atomarchus</i> Cope.
Head not distinct; a loreal and a preocular plate .....	<i>Tropidoclonium</i> Cope.
Head not distinct; a preocular; no loreal plate.....	<i>Adelophis</i> Dugès.
A loreal; no preocular plate .....	<i>Ninia</i> <sup>6</sup> B. & G.
A loreal and preoculars; teeth longer anteriorly.....	<i>Prymniodon</i> Cope.
$\beta\beta\beta$ . One internasal plate; two prefrontals.	
Scales keeled; two nasals and a loreal.....	<i>Haldea</i> <sup>7</sup> B. & G.
** Scales smooth.	
$\alpha$ . Dentition diacranterian.	
One internasal .....	<i>Liodytes</i> <sup>8</sup> Cope.
$\alpha\alpha$ . Dentition syncranterian.	
Two internasals; one prefrontal.....	<i>Hydromorphus</i> <sup>9</sup> Pet.
One internasal plate; two prefrontals; anals two .....	<i>Lymnophis</i> Gthr.
Two internasal plates; two prefrontals; anals two.....	<i>Hypsirhynchus</i> <sup>10</sup> Gthr.
$\alpha\alpha\alpha$ . Dentition isodont.	
Two internasals; anal entire .....	<i>Ablabes</i> <sup>11</sup> B. & D.

## ACONTIOPHIDÆ.

Rostral plate deeply grooved below; nasal single; cephalic plates normal; scales smooth; body round; teeth, the posterior longest, not grooved,  
*Acontiophis* Gthr.

## PROTEROGLYPHA.

HYDROPHIDÆ.<sup>12</sup>

I. Gastrosteges wide, flat.  
 Two pairs of frontal shields..... *Platurus* Latr.

<sup>1</sup> *Tachynectes* Fitz. Cope, Proc. Acad. Phila., 1864, p. 167. *Hydrathrops* Günth. (nares superior).

<sup>2</sup> *Nerodia* B. & G.

<sup>3</sup> *Chilopoma* Cope, preoccupied.

<sup>4</sup> *Tretanorhinus* D. & B. <sup>5</sup> *Xenochrophis* Gthr.

<sup>6</sup> *Ischnognathus* D. & B.

<sup>7</sup> *Streptophorus* D. & B.

<sup>8</sup> *Conocophalus* D. & B.

<sup>9</sup> Type *Helicops alleni* Garman.

<sup>10</sup> An *Trimetopon* Cope?

<sup>11</sup> An *Pseudaspis* Cope, type *Coronella cana* L.; D. & B.

<sup>12</sup> This table is mostly from Günther, Reptiles Brit. India, 355.

## II. Gastrosteges wide, with two keels.

Scales imbricate; one nasal..... *Aepysurus* Lacep.  
Top of head scaly; two nasals..... *Pelagophis* Pet. & Dor.

## III. Gastrosteges narrow, rudimentary, or absent.

\* Nasals separated by frontals.

Gastrosteges distinct to vent..... *Distira* Lacep.  
\*\* Nasals contiguous.

Head covered with scales behind..... *Acalyptus* D. & B.  
Head short, entirely shielded; no symphyseal notch..... *Hydrophis* Daud.

Head moderate, entirely shielded; a deep symphyseal notch..... *Enhydrina* Gray.  
Snout long, spatulate..... *Pelamis* Daud.

## NAJIDE.

I. Grooved teeth behind two perforated teeth on the *os maxillare*.

Head-shields normal; no loreal; scales smooth; form fusiform..... *Ogmodon*<sup>1</sup> Pet.

II. Solid teeth behind the fang on the *os maxillare*.

A. Loreal plate present.

Subcaudals entire; scales smooth..... *Denisonia* Krefft.

AA. Loreal plate absent.

$\alpha$ . The neck with few scales, not extensible.

$\beta$ . Subcaudal scuta one-rowed.

$\gamma$ . Scales of vertebral row equal to others.

Nasals two; scales smooth; anal bifid..... *Pseudechis* Wagl.

One nasal; scales smooth; anal single..... *Hoplocephalus*<sup>2</sup> Cuv.

One nasal; scales keeled; anal single..... *Tropedechis* Gthr.

$\alpha\alpha$ . Scales of vertebral line enlarged.

Scales smooth; two nasals; anal entire..... *Bungarus* Daud.

$\beta\beta$ . Subcaudal scuta two-rowed.

$\gamma\gamma$ . Scales of vertebral row equal.

Rostral plate normal; two nasals..... *Diemenia*<sup>3</sup> Gray.

Rostral plate narrow; produced backwards above; two nasals..... *Pseudonaja* Gthr.

Rostral wide, prominent, depressed; one nasal..... *Furina*<sup>4</sup> D. & B.

Rostral normal; one nasal; anal double..... *Cacophis*<sup>5</sup> Gthr.

$\gamma\gamma$ . Scales of vertebral line enlarged.

Scales smooth..... *Megophis*<sup>6</sup> Gray.

$\alpha\alpha$ . Neck extensible, covered with more numerous scales.

$\beta$ . Anal entire; subcaudals two-rowed.

No postparietal plates..... *Naja*<sup>7</sup> Laur.

Postparietals present..... *Ophiophagus* Gthr.

## III. No solid maxillary teeth.

$\alpha$ . Subcaudal scuta in two rows.

$\beta$ . Rostral plate much developed.

Rostral free at the sides; scales keeled..... *Cyrtophis* Sund.

Rostral not free; scales smooth; anal entire..... *Aspidelaps* Fitz.

Rostral not free; anal entire; two nasals..... *Rhinelaps* Gthr.

$\beta\beta$ . Rostral not enlarged.

Scales keeled..... *Sepedon* Merr.

Scales smooth..... *Callophis* Gr.

$\alpha\alpha$ . Subcaudal scutella in one row.

One nasal; a spine at end of tail..... *Acanthophis* Daud.

<sup>1</sup> *Labionaris* Broochi.

<sup>2</sup> *Alecto* Wagl.

<sup>3</sup> *Pseudelaps* D. & B. *Elaeopoidea* Bocage. *Hemibungarus* Pet.; includes *Brachysoma triste* Gthr.

<sup>4</sup> *Brachyurophis* Gthr.

<sup>5</sup> *Brachysoma* Gthr. *Boulengerina* Dollo.

<sup>6</sup> *Xenurelans* Gthr.

<sup>7</sup> *Tomyris* Eichw.

## ELAPIDÆ.

*α.* Internasal plate touching the nasal laterally.

One nasal plate ..... *Vermicella*<sup>1</sup> Gray.  
 Two nasal plates ..... *Elaps* Schn.  
*αα.* Internasal reaching first labial plate.  
 One nasal; no loreal ..... *Microsoma* Jan.

## DENDRASPIDIDÆ.

No solid teeth behind fang; anal and subcaudal plates divided; scales smooth.  
*Dendraspis*<sup>2</sup> Schi.

## SOLENOGLYPHA.

## CAUSIDÆ.

Subcaudals double, anal entire; scales keeled; rostral prominent, with recurved border ..... *Heterophis* Pet.  
 Subcaudal and anal plates double; scales keeled; rostral normal ..... *Causus* Wagl.  
 Subcaudals and anal entire; scales smooth; rostral normal; a loreal. *Dinodipes* Pet.

## ATRACTASPIDIDÆ.

Head not distinct; two nasals; a loreal; scales smooth; subcaudals entire.  
*Atractaspis* Smith.

## VIPERIDÆ.

I. Urosteges two-rowed.  
 Nostril between two plates ..... *Vipera*<sup>3</sup> Laur.  
 "Nostril between three plates" (Gthr.) ..... *Daboia* Gray.  
 Nostril surrounded by scales and a nasal; horn-like supraocular scales. *Cerastes* Wagl.  
 Nostril surrounded by scales and a supranasal; no supraocular nor nasal horns.  
*Bitis*<sup>4</sup> Gray.  
 Nostril surrounded by scales and a supranasal; horn-like scales above latter; no supraocular horns ..... *Clotho* Gray.

II. Urosteges one-rowed.  
 Body and tail cylindric ..... *Echis*<sup>5</sup> Merr.  
 Body and tail compressed and prehensile ..... *Atheris*<sup>6</sup> Cope.

## CROTALIDÆ.

I. No rattle.  
*β.* Urosteges two-rowed.  
 Top of head scaled; urosteges four-rowed at end; a caudal spine. .... *Lachesis* Wagl.  
 Top of head with small scales; tail normal. .... *Bothrops*<sup>7</sup> Wagl.  
 Top of head with large imbricate shield-like scales ..... *Peltopelos* Gthr.  
 Top of muzzle scaled; rest of head shielded ..... *Hypnale* Cope.  
 Top of head with nine shields; scales carinate ..... *Trigonocophalus* Oppel.  
 Top of head with nine shields; scales smooth ..... *Calloselasma*<sup>8</sup> Cope.  
*ββ.* Urosteges one-rowed.  
 Body and tail cylindric, not prehensile; head scaly. .... *Bothriopsis* Pet.  
 Body and tail compressed, prehensile; head scaly, scales normal. .... *Bothriechis* Pet.  
 Body and tail compressed, prehensile; head scaly; a row of scales outside the superciliary shield. .... *Teleuraspis* Cope.

<sup>1</sup> *Homelaps* Jan. *Poecilophis* Gthr.

<sup>2</sup> *Dinophis* Hallow.

<sup>3</sup> *Pelias* Wagl.

<sup>4</sup> *Echidna* Wagl., not Forster.

<sup>5</sup> *Toxicoxa* Gray.

<sup>6</sup> *Pseudostolus* Gthr.

<sup>7</sup> *Trimesurus* Gray, Gthr., Peters. *Tropidolæmus* Wagler. *Megæra* Gray. *Atropos* Wagl. *Rhinocerophis* Garn.

<sup>8</sup> *Leiolepis* D. & B. nec Cuv.

Body and tail not prehensile; nine normal head-shields .....	<i>Ancistrodon</i> <sup>1</sup> Beauv.
II. A rattle.	
Head with nine scuta above .....	<i>Crotalophorus</i> <sup>2</sup> Gray.
Head with scales above .....	<i>Crotalus</i> <sup>3</sup> Linn.

*Synopsis of the genera.*

Genera.	No.	Genera.	No.
<i>Typhlopidae</i> .....	6	<i>Colubridae</i> (continued) —	
<i>Stenostomidae</i> .....	2	<i>Lycodontinae</i> .....	17
<i>Tortricidae</i> .....	2	<i>Leptognathinae</i> .....	7
<i>Uropeltidae</i> .....	7	<i>Dipsadinae</i> .....	7
<i>Xenopeltidae</i> .....	1	<i>Dasypeltinae</i> .....	2
<i>Pythonidae</i> .....	8	<i>Homalopsinae</i> .....	29
<i>Erididae</i> .....	16	<i>Acontiophidae</i> .....	1
<i>Charinidae</i> .....	1	<i>Hydrophidae</i> .....	8
<i>Acrochordidae</i> .....	2	<i>Najidae</i> .....	19
<i>Nothopidae</i> .....	2	<i>Elapidae</i> .....	3
<i>Colubridae</i> —		<i>Dendraspididae</i> .....	1
<i>Calamarinae</i> .....	57	<i>Caenidae</i> .....	3
<i>Coronellinae</i> .....	23	<i>Atractaspididae</i> .....	1
<i>Scytalinae</i> .....	18	<i>Viperidae</i> .....	7
<i>Colubrinae</i> .....	35	<i>Crotalidae</i> .....	12
<i>Philodryadinae</i> .....	9		
<i>Dryophidinae</i> .....	7		
<i>Psammophidinae</i> .....	3		
		Total .....	316

A number of generic names have been given by authors with definitions which do not refer to the dentition. On this account I have been unable to include them in the above tables. I have credited generic names to authors who have published the first description, and not to those who have given them as *nomina nuda*.

**CATODONTA.****STENOSTOMIDÆ.*****Stenostoma* Wagler.**

Dum. et Bibr., vi, 32    *Rena* Baird and Girard.

*STENOSTOMA MACROLEPIS* Peters, Monatsber. Akad. Wiss. Berlin, 1857, p. 402; Jan, Iconogr. Gen. Ophid., Fasc. ii, tab. v, vi, fig. 10. *!S. myopicum* Garman, Mem. Mus. Comp. Zool. Cambridge, 1883, p. 6.

Las Aguilillas, Michoacan, *Dugés*.

*STENOSTOMA DULCE* Baird, Girard, *Rena dulcis* Bd. Girard, Catal. Serpents, 142. Northern Mexico, *Jan*, *Peters*; Batopilas, Chihuahua, *Wilkinson*.

*STENOSTOMA PHÆNOPS* Cope, Journ. Acad. Phila., 1875, p. 128.

Coban, Guatemala, *H. Hague*; Tehuantepec, *Sumichrast*; Jalapa, *Comision Geográfica Exploradora*.

*STENOSTOMA ALBIFRONS* Wagler, Dum. et Bibr., vi, 327; Cope, Journ. Acad. Phila., 1875, p. 128. Panama, *C. B. Adams*.

***Rena* Baird & Girard.**

Catal. N. Amer. Rept. Serpents, 1853, p. 142; *Siagonodon* Peters, Gesellsch. d. Naturforsch. Freunde Berlin, 1881, p. 71; *Catodon* Dum. Bibr., Erp. Gén., 1844, vi, p. 318, not of Linn.

<sup>1</sup> *Cenchris* Daud.

<sup>2</sup> *Caudisoma* Fitz., Wagl. *Systrurus* Garman.

<sup>3</sup> *Caudisoma* Lour. *Crotalophorus* Linn., pt., *Uroposophus* Wagl.

RENA DUGESI Bocourt; *Siagonodon dugesi* Bocourt, Miss. Sci. au Mex., Reptiles, p. 507, pl. xxi, fig. 9; xxx, fig. 4.  
Guanajuato, *Dugés*.  
RENA HUMILIS Baird, Girard, Catal., loc. cit., p. 143; *Stenostoma humile* Cope, Check List Batr. Rept. N. Amer., p. 44.  
Lower California, *Belding*.

### EPANODONTA.

#### TYPHLOPIDÆ.

##### *Typhlops* Schn.

Dum. et Bibr., vi, 279.

**TYPHLOPS MICROSTOMUS** Cope, Proc. Acad. Phila., 1866, 125.  
Yucatan, *Schott*.

**TYPHLOPS BASIMACULATUS** Cope, Proc. Acad. Phila., 1866, p. 320; *Typhlops perditus* Peters, Monatsber. Acad. Berlin, 1869, p. 435.  
Cordova and Orizaba, *Sumichrast*.

**TYPHLOPS TENUIS** Salvin, Proc. Zool. Soc. London, 1860, p. 454.  
Guatemala, *Salvin*.

##### *Helminthophis* Peters.

Monatsber. K., Akad. Wiss., 1860, p. 517. *Idiophlops* Jan, Arch. p. l. Zoölogia, i, 1861, p. 186.

**HELMINTHOPHIS FRONTALIS** Peters, loc. cit., fig. 1; Bocourt, Miss. Sci. Mex., 502, pl. xxx, fig. 2.  
Costa Rica, *Hoffman*.

##### *Liotyphlops* Peters.

Gesellsch. Nat. Freunde Berlin, 1881, 69.

**LIOTYPHLOPS ALBIROSTRIS** Peters, Monatsber. Berl. Akad. Wiss., 1881, p. 69; Bocourt, Miss. Sci. Mex., 501, pl. xxx, fig. 1; *Rhinotyphlops albirostris* Peters, Monatsber. Ak. Wiss. Berlin, 1857, p. 402.

Veragua, Central America, *Peters*.

##### *Anomalepis* Jan.

Jan et Sordelli Iconogr. des Ophidiens, 1864, p. 6.

**ANOMALEPIS MEXICANUS** Jan, loc. cit., pls. v, vi, fig. 1; Bocourt, Miss. Sci. Mex., 503, pl. xxix, figs. 4, 5.  
"Mexico," *Jan*.

### ASINEA.

#### PYTHONIDÆ.

##### *Loxocemus* Cope.

Proc. Acad. Phila., 1861, pp. 76-304.

**LOXOCEMUS BICOLOR** Cope, loc. cit., Günther, Ann. and Mag. Nat. Hist., 1863; *Loxocemus sumichrasti* Bocourt, Journ. de Zoologie, 1876, p. 404; *Platosteryx bronni* Jan, Elenco, 1863, p. 20; Iconographie. Ophidens 3d Liv. pl. 3.  
Guatemala, *Dow*; Tehuantepec, *Sumichrast*; Colima, *Xantus*.

#### CHARINIDÆ.

##### *Charina* Gray.

Catal. Brit. Mus., 1849, p. 113; *Wenona* Baird, Girard, Catal. N. Am. Reptiles, Serpents, p. 139, 1853.

**CHARINA BOTTA** Blainv., Nouvelles Ann. Mus. Hist. Nat., iii, 1834, p. 57.  
Lower California, *Botta*.

## BOIDÆ.

## Lichanura Cope.

Proc. Acad. Phila., 1861, p. 304; Bocourt, Miss. Sci. Mex., p. 513.

LICHANURA TRIVIRGATA Cope, Proc. Acad. Phila., 1861, p. 304.

Lower California, *Xantus*, *Belding*.

LICHANURA MYRIOLEPIS Cope, Proc. Acad. Phila., 1868, p. 2.

Lower California, *Xantus*.

LICHANURA ROSEIFUSCA Cope, Proc. Acad. Phila., 1868, p. 2.

Lower California, *Xantus*.

## Boa Linn.

Dum. et Bibr. Erp. Gén., vii.

BOA IMPERATOR\* Daud., Dum. et Bibr., vi, p. 519; Cope, Journ. Acad. Nat. Sci. Phila., 1875, p. 130; *B. eques* "Eyd. Soul.", Cope, Proc. Acad. Phila., 1860, 243; 1866, 126; *B. ortonii* Cope, Proc. Amer. Philos. Soc., 1877, p. 19.

Costa Rica, *Gabb*; Greytown, Nicaragua, *Caldwell*; Nicaragua, *MacNiel*; Guatemala, *Dow*; Yucatan, *Schott*; Vera Cruz, *Sartorius*; Colima, *Xantus*; Jalapa and Jicaltepec, Vera Cruz, *Comision Geográfica*.

BOA ? MEXICANA Rapp, M. S., Bocourt, Mis. Sci. Mex., 521; *B. diviniloquax* var. *mexicana* Jan et Sordelli, Iconogr. des Ophidiens, 1865, 82, pl. iv.  
"Mexico," *Rapp*.

## Unguialophis Müller.

Erster Nachtrag, z. Catal. Herp. Samml. Mus. Basel, 1880, p. 26; Nomen. Katalog. Mus. Universitätskab. Verhandl. Naturforsch. Gesellsch., Basel, 1878, p. 652, descriptio. *Peropodium* Bocourt, Mis. Sci. Mex., p. 523.

UNGUALIOPHIS CONTINENTALIS Müller, loc. cit. et 1878, pl. i; *Peropodium guatemalensis* Bocourt, Mis. Sci. Mex., p. 523, pl. xxxi, fig. 5.  
N. E. Guatemala, Müller.

## Epicrates Daudin.

Dum. et Bibr. Erp. Gén., vi, p. 552.

EPICRATES CUPREUS Fisch.; *E. concolor* Jan.  
Costa Rica, *Jan*.

EPICRATES CENCHRIA Daud., Dum. et Bibr., vi, p. 555; Cope, Jour. Acad. Phila., 1875, p. 130.

Costa Rica, *Van Patten*.

\* As remarked by Bocourt, the orbital ring of scales in this species is sometimes separated from the superior labial plates by a row or two of scales, as in the *B. constrictor*. In four specimens from Colima it is so separated in three, and in two from Vera Cruz it is so separated on both sides in one, and in the other, on one side of the head and not on the other. In a specimen from Greytown, Nicaragua, referred in the Proceedings of the American Philosophical Society, 1877, p. 19, to the *B. ortonii* it is separated by two rows, and there are fifteen scales between the eyes instead of the usual number, eleven. I believe all these individuals to belong to one species, which is, as stated by Sumichrast, generally distributed in Mexico. The numbers of scuta and scales in several specimens is as follows: Greytown, scales, 69 rows; gasteosteges, 242; Tehuantepec, sc. 69; g. 240, mosteges, 58; Colima (four specimens), sc. 71-3-4; gasteosteges (one specimen), 242; mosteges, 58; Cordova, Vera Cruz, sc. 73; Mirador, Vera Cruz, sc. 65; g. 238; u. 53. There are then three well-defined species of Boa: the *B. constrictor*, *B. imperator*, and *B. diviniloquax*. The *B. ortonii* must be referred to the *B. imperator*, and the *B. mexicana* has not yet been satisfactorily separated from the *B. diviniloquax*. The *B. eques* continues to be represented by the type specimen only.

**Xiphosoma Wagler.**

*Nat. Syst. Amphib.*, 1830, p. 167; Dum. et Bibr., vii.

**XIPHOSOMA ANNULATUM** Cope, *Jour. Acad. Phila.*, 1875, p. 129, pl. xxviii, fig. 6.  
Costa Rica, *Gabb.*

**XIPHOSOMA RUSCHENBERGERI** Cope, loc. cit.  
Panama, *Ruschenberger.*

**NOTHOPIDÆ.****Nothopsis Cope.**

*Proc. Acad. Phila.*, 1871, p. 201.

**NOTHOPSIS RUGOSUS** Cope, loc. cit., p. 201; pl. xvii; figs. 1-7.  
Darien, *Selfridge.*

**COLUBRIDÆ.****Leptognathus Dum. Bibr.**

*Erp. Gén.*, vii, 456; *Gthr. Catal.*, 1858, p. 177; *Cope, Proc. Acad. Phila.*, 1868, 135; *Petalognathus*, *Dipodomorus*, *Anholodon*, *Leptognathus* Dum. Bibr., vii, 1853.

**LEPTOGNATHUS STRATISSIMA** Cope, *Proc. Amer. Philos. Soc.*, 1885 (nov.), p. 280 (1886).  
Panama, *Nelson.*

**LEPTOGNATHUS NEBULATA** Linn; *Petalognathus nebulatus* Dum. et Bibr., vii, 464; *Leptognathus* *Gthr.*, *Cope, loc. cit.*, 1868, p. 108; *L. nebulata* *Cope, Journ. Acad. Phila.*, 1875, p. 131.

Nicaragua, *Caldwell*, *MacNiel*; Costa Rica, *Gabb*, *Van Patten*; Vera Cruz, Tierra caliente, *Sumichrast*; Jicaltepec, Vera Cruz, *Comision Geográfica*.

**LEPTOGNATHUS ANNULATA** *Günther*, *Ann. and Mag. Nat. Hist.*, 1872, p. 33; *Cope, Journ. Acad. Phila.*, 1875, p. 130.  
Costa Rica, *Günther.*

**LEPTOGNATHUS ARGUS** Cope, *Journ. Acad. Phila.*, 1875, p. 130, pl. xxvii, f. 1; xxviii, f. 7.  
Sipurio, E. Costa Rica, *Gabb.*

**LEPTOGNATHUS PICTIVENTRIS** Cope, *loc. cit.*, pl. xxvii, fig. 8.  
E. Costa Rica, *Gabb.*

**LEPTOGNATHUS ARTICULATA** Cope, *Proc. Acad. Phila.*, 1868, 107; " *Dipsas brevis* D. & B," *Cope, loc. cit.*, 1860, 266.  
Veragua, Costa Rica, *Mitchell.*

**LEPTOGNATHUS VIGUIERI** Bocourt, *Bull. Soc. Philomath. Paris*, 1884, March, sep., p. 4  
Darien, *Viguer.*

**LEPTOGNATHUS BREVIFACIES** Cope, *loc. cit.*, 1866, 127; 1868, 108.  
Yucatan, *Schott.*

**LEPTOGNATHUS FEMICINCTUS** Bocourt, *Bull. Soc. Philomath. Paris*, March, 1884, sep., p. 7.  
Vera Paz, *Mission Scientifique*.

**LEPTOGNATHUS ANTHRACOPS** Cope, *loc. cit.*, 1868, pp. 108, 136.

Central America, *Bridges*, *Davidson*; W. Nicaragua, *MacNiel*, *Flint*.

**LEPTOGNATHUS TORQUATA** Cope, *Proceeds. Amer. Philos. Soc.*, 1884, p. 72, *Dipsadomorus fasciatus* Bocourt, *Bull. Soc. Philomath. Paris*, 1884, March; nec *Leptognathus fasciatus* *Günther*, 1868.  
Yucatan, *Boucard.*

**LEPTOGNATHUS BREVIS** Dum. Bibr., *Erp. Gén.*, vii, p. 476.  
"Mexico." Unknown to me.

**LEPTOGNATHUS FASCIATA** Günther, Cope, loc. cit., 1868, p. 137; *Tropidodipsas fasciata* Günther, Catal. Brit. Mus., 1858; *Leptognathus dumerili* Jan, Elenco Sistematico, 1863.

Tierra caliente, Jicaltepec, Vera Cruz, *Comision Geográfica*.

**LEPTOGNATHUS SARTORII** Cope, loc. cit., 1868, 137; *Tropidodipsas sartorii* Cope, loc. cit., 1863, p. 100; *Leptognathus sexscutatus* Bocourt, Bull. Soc. Philomath. Paris, March, 1884; ? *L. leucostomus* Bocourt, loc. cit.

Vera Cruz, *Sartorius*; W. Guatemala, *Bocourt*.

**LEPTOGNATHUS LEUCOSTOMUS** Bocourt, Bull. de la Soc. Philomath. Paris, March, 1884, sep., p. 7.

Yucatan, *Bocourt*.

**Mesopeltis** Cope.

Proc. Acad. Phila., 1866, p. 318; *Asthenognathus* Bocourt, Bull. Soc. Philomath. Paris, March, 1884.

**MESOPELTIS SANNIOLUS** Cope, Proc. Acad. Phila., 1866, p. 318.  
Yucatan, *Schott*.

**MESOPELTIS MULTIFASCIATUS** Jan, M. S.; Cope, Proc. Amer. Philos. Soc., 1884, p. 172;  
*Leptognathus* Bocourt, Bull. Soc. Philomath. Paris, 1884, March; *Asthenognathus* Bocourt, loc. cit  
Vera Paz, *Morelet*.

**Sibon** Fitzinger.

Neue Class. Rept., 1826, p. 60; *Leptodira* Günther, Catal. Brit. Mus., 1858, 165.

**SIBON PACIFICUM** Cope; *Leptodira pacifica* Cope, Proc. Acad. Phila., 1868, p. 310.  
Mazatlan, *Bischoff*.

**SIBON MYSTACINUM** Cope; *Leptodira mystacina* Cope, Proc. Amer. Philos. Soc., 1869, p. 151.

Nicaragua, *MacNiel*; West Tehuantepec, *Sumichrast*.

**SIBON FRENATUM** Cope, Proceedings. U. S. Nat. Museum, 1886, p. 184.  
Jalapa, *Comision Geográfica*.

**SIBON RHOMBIFERUM** Günther; *Leptodira rhombifera* Güüther, Ann. and Mag. Nat. Hist., 1872, p. 32.  
Guatemala, *Günther*.

**SIBON NIGROFASCIATUM** Günther; *Leptodira nigrofasciata* Günther, Ann. and Mag. Nat. Hist., 1868, p. 425.  
Nicaragua, *Seeman*.

**SIBON PERSONATUM** Cope; *Leptodira personata* Cope, Proc. Acad. Phila., 1868, p. 310,  
Mazatlan, W. Mexico, *Bischoff*.

**SIBON ANNULATUM** Linn; *Dipsas* Schl.; *Leptodira* Günther.

Subspecies **ANNULATUM** Linn.; *Dipsas* et *Leptodira annulata* Auctorum, Cope Journ. Acad. Phila., 1875, p. 157.

Old Harbor, Costa Rica, *Gabb*.

Subspecies **YUCATANENSIS** Cope, Proc. Acad. Phila., 1866, p. 127.

Yucatan, *Schott*.

Subspecies **SEPTENTRIONALE** Kenn.; *Dipsas septentrionalis* Kennicott, U. S. Mex. Bound., Surv. Reptiles, Plate; vide Günther, Catal. Colubr. Snakes Brit. Mus., 1858, p. 166.

Panama, *Branford*; Belize, *Parsons*; Yucatan, *Schott*; Guatemala, *Hague*; Tehuantepec, *Sumichrast*; Colima, *Xantus*; Zacualtipan Hidalgo *Cope*; Orizava, *Sumichrast*; Mirador, *Sartorius*; Tuxpan, *Linceum*; Guadalajara, *Major*.

**Trimorphodon Cope.**

Proc. Acad. Phila., 1861, p. 297.

**TRIMORPHODON BISCUTATUS** Dum. et Bibr., Cope, Proc. Amer. Philos. Soc., 1869, p. 153; *Dipsas biscutatus* Dum. et Bibr., Erp. Gén., vii, p. 1153; *Dipsadomorphus Günther*; *Trimorphodon major*, Cope, Proc. Amer. Philos. Soc., 1869, p. 153. Realejo, Nicaragua, Dow; Guadalaxara, Major; W. Tehuantepec, Sumichrast; Coban, Hague; Colima, Xantus.

**TRIMORPHODON LYROPHANES** Cope, Proc. Acad. Phila., 1860, p. 343. Cape St. Lucas, Xantus.

**TRIMORPHODON WILKINSONII** Cope, Proc. Amer. Philos. Soc., 1886, p. 285. City of Chihuahua, Wilkinson.

**TRIMORPHODON LAMBDA** Cope, Proc. Amer. Philos. Soc., 1886, p. 286 (November, 1885). Guaymas, Emerich.

**TRIMORPHODON COLLARIS** Cope, Journ. Acad. Phila., 1875, p. 131. Orizaba, Vera Cruz, Sumichrast.

**TRIMORPHODON UPSILON** Cope, Proc. Amer. Philos. Soc., 1869, p. 152. Guadalaxara, W. Mexico, Major; Batopilas, Chihuahua, Wilkinson; Guanajuato, Dugés; Zacualtipan, Bernad.

**TRIMORPHODON TAU** Cope, loc. cit., 1869, p. 152. Tehuantepec, Sumichrast.

**Dipsas Boie.**

**Isis**, 1827, 549; Günther, Catal., 1858, 317; *Himantodes* Dum. et Bibr., Erp. Gén., vii, 1065.

**DIPSAS LEUCOMELAS** Cope; *Himantodes leucomelas* Cope, Proc. Acad. Phila., 1861, p. 296. Vera Cruz, Sartorius.

**DIPSAS CENCHOA** Linn., Günther, Catal., 174; Cope, Journ. Acad. Phila., 1875, p. 131; *Himantodes cenchoa* Dum. Bibr.

Darien, Selfridge; Costa Rica, Gabb; Central Mexico, Sartorius; San José Acateno, Vera Cruz, Comision Geográfica.

**DIPSAS GEMMISTRATA** Cope, Jour. Acad. Phila., 1875, p. 131; *Himantodes gemmistratus* Cope, Proc. Acad. Phila., 1861, p. 296.

San Salvador, Dow; Costa Rica, Van Patten; W. side of Tehuantepec, Sumichrast. Var. v. subspecies **LATISTRATA** Cope. The very numerous dorsal spots extend entirely across the back and sides.

Valley of Toluca, Vasquez; Guadalajara, Major.

**DIPSAS TENUISSIMA** Cope; *Himantodes tenuissimus* Cope, loc. cit., 1866, 317. Yucatan, Schott.

**Dryophis Fitzinger.**

Neue Class., 1826, p. 66; Günther, Catal., p. 158.

**DRYOPHIS ACUMINATUS** Wied.; Günther, Catal., p. 156; Dum. et Bibr., Erp. Gén., vii, p. 819; Cope, Journ. Acad. Phila., 1875, p. 132; *Oxybelis acuminatus* Dum. et Bibr. Panama, Gallae; Veraguas, Mitchell; Costa Rica, Van Patten, Gabb; Nicaragua, MacNiel, Bransford; Tehuantepec (E.), Streets; (W.), Sumichrast; Tabasco, Berréndt; Guayma, Stone; San Salvador, Dow; Tuxpan, Linecum; Coatzacoalcas River, Streets.

**DRYOPHIS BREVIROSTRIS** Cope, Proc. Acad. Phila., 1860, p. 555; Journ. Acad. Nat. Sci. Phila., 1875, pl. xxvi, fig. 2.

Veragua, Mitchell; Costa Rica, Van Patten, Gabb.

**DRYOPHIS FULGIDUS** Daudin; Günther, Catal., p. 158.

Panama, Leconte; San Salvador, Dow; Tehuantepec, Sumichrast.

**Philothamnus Smith.**

*Rhamnophis* Günther.

**PHILOTHAMNUS ÆRUGINOSUS** Cope; *Leptophis æruginosus* Cope, Journ. Acad. Phila., 1875, p. 132, pl. xxviii, fig. 9.

Costa Rica, *Gabb.*

**PHILOTHAMNUS MODESTUS** Günther; *Ahatulla modesta* Günther, Ann. and Mag. Nat. Hist., 1872, p. 26.

Guatemala, *Günther.*

**PHILOTHAMNUS DEPRESSIROSTRIS** Cope, Proc. Acad. Phila., 1860, p. 557.

Cocuyas de Veraguas, *Mitchell.*

**Hapsidophrys Fischer.**

**HAPSIDOPHYS MEXICANUS** Dum. et Bibr., Cope, Proc. Amer. Philos. Soc., 1885, p. 382; *Leptophis mexicanus* Dum. et Bibr. Erp. Gén., vii, 536; *Ahatulla mexicana* Günther, Catal., 1858, p. 154; Cope, Journ. Acad. Phila., 1875, p. 133.

Costa Rica (valley), *Van Patten*; Nicaragua, *Bransford*, *MacNiel*; Honduras, *Leconte*; Yucatan, *Schott*; Belize, *Parsons*; Northern Mexico, Vera Cruz, *Sumichrast*, *Mision Geográfica*.

**HAPSIDOPHYS DIPILOTROPIS** Günther; *Ahatulla diplostropis* Günther, Ann. and Mag. Nat. Hist., 1872, p. 25.

Tehuantepec, *Sumichrast.*

**HAPSIDOPHYS SATURATUS** Cope; *Leptophis saturatus* Cope, Journ. Acad. Phila., 1875, p. 133, pl. xxviii, fig. 10.

Costa Rica, *Gabb*; Nicaragua, *Bransford*.

**Leptophis Bell.**

Zool. Journ. 1825, pt., Dum. et Bibr., 1853; *Thrasops* Hallowell, Proc. Acad. Phila. 1857; *Ahatulla* Günther, Catal., 1858, p. 151; not of Gray, 1825.

**LEPTOPHIS BILINEATUS** Günther; *Diplostropis bilineatus* Günther, Ann. and Mag. Nat. Hist., 1872, p. 25.

Nicaragua, *Bransford*; Tehuantepec, *Sumichrast.*

**LEPTOPHIS OCCIDENTALIS** Günther; *Ahatulla occidentalis* Günther, Proc. Zool. Soc. London, 1859, p. 412.

Darien, *Selfridge*; Panama, *Leconte*.

**LEPTOPHIS SARGII** Fischer, Archiv. f. Naturgesch., xlvi, 1881 (separate, p. 7), pl. xi, figs. 7-9.

Coban, *Sarg.*

**LEPTOPHIS PRÆSTANS** Cope, Journ. Acad. Phila., 1875, p. 133; *Thrasops præstans* Cope, Journ. Acad. Phila., 1868, p. 309.

E. Costa Rica, *Gabb*; Guatemala, *Hague*.

**Drymobius Cope.**

Proc. Acad. Phila., 1860, p. 560; Proc. Amer. Philos. Soc., 1877, p. 19; *Dendrophidium* Cope, Proc. Acad. Phila., 1860, p. 561; *Coluber* Wagler, Nat. Syst. Amphib., 1830, p. 179; Duméril, Prodrome, 1853, 59 partim; nec Laurentii.

**DRYMOBIUS CHLOROTICUS** Cope; *Dendrophidium chloroticum* Cope, Proc. Amer. Philos. Soc., 1886, p. 278.

Coban, Guatemala, *Hague*.

**DRYMOBIUS DENDROPHIS** Schlegel; *Herpetodryas dendrophis* Schlegel, *Essai sur la Physiologie des serpents*, ii, p. 197, Dum. et Bibr., vii, 208; *H. poitei* Dum. et Bibr.; *H. nuchalis* Peters, *fide Günther*; *Dendrophidium dendrophis* Cope, *Proc. Acad. Phila.*, 1860, p. 561.

Guiana, *Auctorum citatorum*; Nicaragua, *Bransford*.

**DRYMOBIUS ALTERNATUS** Bocourt; *Coryphodon alternatus* Bocourt, *Bull. Soc. Philomath.* Paris, March, 1884.

Darien, *Viguer*.

**DRYMOBIUS BODDÆRTII** Seetzen; Cope, *loc. cit.*, 1860, 561, *Journ. Acad. Phila.*, 1875, p. 135; *Herpetodryas boddartii* Dum. et Bibr., vii, p. 210, *Günther*.

Panama, *Nelson*; Veraguas, *Mitchell*; Costa Rica, *Van Patten, Gabb*; Nicaragua, *Moser, MacNiel*; Jalapa, *Montes-DeOca*; Tuxpan, *Lincecum*; Autopam, *Comision Geografica*.

**DRYMOBIUS MELANOLOMUS** Cope, *Proc. Acad. Phil.*, 1868, 134; *Masticophis bilineatus* Schlegel, Cope, *loc. cit.*, 1866, p. 127, *nec Schlegelii*.

Yucatan, *Schott*.

**DRYMOBIUS BILINEATUS** Schlegel; *Herpetodryas bilineatus* Schlegel, *Jan. Elenco Systematico*, p. 81; *Icono. Gén.*, tab.

“Mexico,” *Jan.*’

**DRYMOBIUS PULCHERRIMUS** Cope, *Proc. Acad. Phila.*, 1874, p. 65.

Western Central America, *Daridson*; West Nicaragua, *Flint*.

**DRYMOBIUS LÆVIS** Fischer; *Herpetodryas lavis* Fisch., *Archiv f. Naturgeschichte*, 1881, pl. xi, figs. 4-6.

Coban, *Sarg.*

**DRYMOBIUS MARGARITIFERUS** Schlegel, Cope, *Proc. Amer. Philos. Soc.*, 1877, p. 19; *Herpetodryas margaritiferus* Schlegel, *Essai s. Phys. Serpents*, ii, p. 184; *Dromicus* *Günther*; *Masticophis* Cope.

Panama, *Leconte*; Costa Rica, *Gabb*; Belize, *Parsons*; Guatemala, *Hague*, *Van Patten, Berendt*; Tehuantepec, *Sumichrast* (West) *Streets* (East); Tabasco, *Berendt*; Table land of Mexico, *Sartorius*; Colima, *Xantus*; Tuxpan, *Lincecum*; Misantla, San José, Vera Cruz, *Comision Geográfica*; Coatzacoalcas, R., *Streets*; Zacualtipan, *Bernad*.

### Herpetodryas Boie.

**Isis**, 1827; Cope, *Proc. Acad. Phila.*, 1860, p. 563.

**HERPETODRYAS CARINATUS** Linn., Dum. Bibr., vii, p. 207; Cope, *Journ. Acad. Phila.*, 1875, p. 135.

Low country of E. Costa Rica, *Gabb*; San José, *Van Patten, Zeledon*; Darien, *Selfridge*.

**HERPETODRYAS FUSCUS** Duméril et Bibron, *Erp. Gén.*, vii, p. 209.

Darien, *Selfridge*.

**HERPETODRYAS MELAS** Cope, *Proc. Amer. Philos. Soc.*, 1885, November, 1885, p. 278. Nicaragua, *Bransford*.

**HERPETODRYAS GRANDISQUAMIS** Peters; *Spilotes grandisquamis* Pet., *Monatsber. k. Akad. Preuss.*, 1868, p. 451; *H. grandisquamis* Cope, *Journ. Acad. Phila.*, 1875, p. 135.

Costa Rica, *Gabb*.

### Bascanium Baird and Girard.

**Catal. Serp. N. A.**, 1853, p. 93; *Coryphodon* Dum. et Bibr., *Erp. Gén.*, vii, p. 178, *nec Owenii*; *Coluber* Dum., *Prodrome*, 1853, p. 59, *partim*; *Garman*; *nec Laurentii*; *Masticophis* Baird and Girard, *Catal. Serp. N. A.*, 1853, p. 98.

**BASCANIUM MENTOVARIUM** Dum. et Bibr.; *Coryphodon mentorarium* Dum. et Bibr., Erp. Gén., vii, p. 187; *B. suboculare* Cope, Proc. Acad. Phila., 1866, p. 319.  
Guatemala, *Hague*; Tehuantepec, *Sumichrast*; Colima, *Xantus*.

**BASCANIUM FLAGELLIFORME** Catesb.

Subspecies **TESTACEUM** Say; Baird and Girard, Catal., pp. 99, 150.

Lower California, *Xantus*; Guadalaxara, *Major*; City of Chihuahua, *Wilkinson*.

**BASCANIUM AURIGULUM** Cope, Proc. Acad. Phila., 1861, p. 301.

Cape St. Lucas, Lower California, *Xantus*.

**BASCANIUM TÆNIATUM** Hallowell; Cope, Check-list Batr. Rept., N. Amer.; *Leptophis taniata* Hallowell, Proc. Acad. Phila., vi, 1862, p. 181.

Subspecies **LATERALE** Hallowell; *Leptophis lateralis* Hallowell, Proc. Acad. Phila., 1853, U. S. Pac. R. R. Surv. and Williamson's Report, Rept., p. 13, pl. iv, fig. 3.

Guanajuato, *Dugés*; City of Chihuahua, *Wilkinson*.

**Elaphis** Aldrov.

Günth. emend. Catal. Brit. Mus., 1858, p. 92.

**ELAPHIS MELANOTROPIS** Cope; *Dendrophidium melanotropis* Cope, Journal Acad. Phila., 1875, p. 134, pl. xxxi, fig. 7.

E. Costa Rica, *Gabb*.

**Natrix** Laurenti.

Specimen Synopsis Reptilium 1768, p. 63; Cope emend., Proc. Acad. Phila., 1862, p. 338; *Calopeltis* Bonap. Mem. Real. Acad. Sci. Torin. (2) II, 431, 1840; *Coluber* Günther, Catal. Brit. Mus., 1858, 87; *Scotophis* Baird and Girard, Catal. Serp. N. Amer., 1853, p. 73.

**NATRIX EMMORYI** Bd. Gird.; *Coluber emoryi* Baird and Girard, Cope, Check-list Batr. Rept. N. Amer., 1875, p. 39; Proc. Amer. Philos. Soc., 1885, p. 284; *Scotophis emoryi* Baird and Girard, Catal. Rept. N. Amer., i, Serpents, p. 157.  
City of Chihuahua, *Wilkinson*.

**NATRIX FLAVIRUFUS** Cope; *Coluber flavirufus*, Proc. Acad. Phila., 1866, p. 319.  
Yucatan, *Schott*; Tabasco, *Berendt*; Mirador, Vera Cruz, *Sartorius*; Chiapas, *Montes-de-Oca*.

**NATRIX MUTABILIS** Cope; *Coluber mutabilis* Cope, Proc. Amer. Philos. Soc., 1884, p. 175.  
Costa Rica, *Zeledon*; Vera Paz, *Hague*; Central Tehuantepec, *Sumichrast*; Guanajuato, *Dugés*.

**NATRIX TRIASPIS** Cope; *Coluber triaspis*, Proc. Acad. Phila., 1866, p. 128.  
Belize, *Parsons*.

**Spilotes** Wagler.

Nat. Syst. Amphib., 1830, p. 179. *Georgia* Baird and Gird., 1853.

**SPILOTES LUNULATUS** Cope; *Tropidodipeas lunulatus* Cope, Proc. Acad. Phila., 1860, p. 517; *Phrynonax lunulatus* Cope, loc. cit., 1862, p. 348.  
Honduras, *Rüee*; Orizaba, *Sumichrast*.

**SPILOTES CHRYSOBRONCHIUS** Cope, Journ. Acad. Phila., 1875, p. 136, pl. xxviii, fig. 11, Costa Rica, *Gabb*.

**SPILOTES PECILONOTUS** Günther, Catal., p. 100.  
"Honduras," *Günther*; Orizava, *Sumichrast*.

**SPILOTES AURIBUNDUS** Cope; *S. pullatus auribundus* Cope, Proc. Acad. Phila., 1861, p. 300; *S. salvini* Gthr., Ann. and Mag. Nat. Hist., 1862, Jan.  
Nicaragua, *MacNeil*; Yucatan, *Schott*; Vera Cruz, *Sartorius*.

**SPILOTES PULLATUS** Linn.; *S. variabilis* Wied., Dum. et Bibr., vii, p. 220; *S. pullatus* Cope, Journ. Acad. Phila., 1875, p. 135.  
Darien, *Selfridge*; Nicaragua, *Bransford*; Costa Rica, *Gabb*.

**SPILOTES CORAIS** Cuvier; *Coluber corais* Cuvier; *Spiolites corais* Dum. Bibr., vii, p. 223; Günther, Catal., 1858, p. 98; Cope, Journ. Acad. Phila., 1875, p. 157.

Subspecies **MELANURUS** Dum. et Bibr.; *Spiolites melanurus* Dum. et Bibr., vii, 224. Panama, *Bransford*; San José and Talamanca, Costa Rica, *Gabb*; W. Tehuantepec, *Sumichrast*; Yucatan, *Schott*; Tuxpan, *Linoeum*; Colima, *Xantus*; Vera Cruz (Mírador), *Sartorius*; Belize, !

Subspecies **EREBENNUS** Cope, Journ. Acad. Phila., 1875, p. 135; *Spiolites erebennus* Cope, Proc. Acad. Phila., 1860, p. 564.

Guanajuato, *Dugés*; Jalapa, *Comision Geográfica*.

**SPILOTES DEPPEI** Dum. Bibr.; *Elaphis deppei* Dum. et Bibr., vii, 268; *Arizona jani* Cope, Proc. Acad. Phila., 1860, p. 369; *Pityophis deppei* Jan.

Buena Vista, *Couch*; Guanajuato, *Dugés*; San José Acateno, Vera Cruz, *Comision Geográfica*.

**SPILOTES LINEATICOLLIS** Cope; *Arizona lineaticollis* Cope, loc. cit., 1861, p. 300.

Southern Mexican Plateau, *Sartorius*.

#### Rhinechis Micahelles.

Dum. Bibr. Erp. Gén., vii, p. 227; Günther, Catal. Brit. Mus., 1868, p. 85; *Arizona Kennicott*, U. S. Mex. Bound. Surv., ii, Reptiles, p. 18, 1859.

**RHINECHIS ELEGANS** Kennicott; Cope, Proc. Amer. Philos. Soc., 1885, p. 284; *Arizona elegans* Kenn., loc. cit., p. 18, pl. 13; *Pityophis elegans* Cope, Check-list Batr. Rept. N. Amer., p. 39.

City of Chihuahua, *Wilkinson*.

#### Pityophis Holbrook.

N. Amer. Herp., 1842, iv, p. 7; Cope, Check-list Batr. Rept. N. Amer., 1859.

**PITYOPHIS VERTEBRALIS** Blainville, Cope, Check-list Batr. Rept. N. Amer., 1875, 39; *P. hamatois* Cope, Proc. Acad. Phila., 1860, p. 342.

Cape St. Lucas, Lower California, *Xantus*.

**PITYOPHIS SAYI** Schleg.

Subspecies **MEXICANUS**; *Pityophis mexicanus* Dum. et Bibr., vii, p. 236. Colima, *Xantus*; City of Chihuahua, *Wilkinson*.

#### Salvadora Baird and Girard.\*

Catal. Serp. N. Amer., 1853, p. 104, nec. Linnaei; hinc *Phimothyra* Cope, Proc. Acad. Phila., 1860, 566.

**SALVADORA MEXICANA** Dum. et Bibr.; Günther, Am. Mag. Nat. Hist. 1863, xii, 349.

*Zamenis mexicanus* Dum. et Bibr., Erp. Gén., vii, p. 695; *Lytorhynchus mexicanus* Cope, Proc. Amer. Philos. Soc., 1879, 266.

Colima, *Xantus*.

**SALVADORA BAIRDII** Jan; *Salvadora bairdii* Jan, Iconografia degli Ofidi., tab. iii, fig. 2; *Phimothyra bairdi* Cope.

Jalapa, *Pease*; Guanajuato, *Dugés*; Orizaba and W. Tehuantepec, *Sumichrast*; S. of Chihuahua, *Potts*.

**SALVADORA GRAHAMIAE** Baird and Girard, Catal., p. 104; *Phimothyra grahamiae* Cope. Lower California, *Xantus*; Guaymas, *Cragin*; Batopilas, and Chihuahua, *Wilkinson*.

**SALVADORA DECURTATA** Cope; *Phimothyra decurtata* Cope, Proc. Acad. Phila., 1868, p. 310.

Lower California, *Xantus*, *Belding*.

\* The name *Salvadora* was given by Linneus to a genus of plants, hence I gave the present genus another name, as above cited. However, I think that while duplication of names in zoology is inadmissible, it is not necessary to require that names used in the vegetable kingdom should always differ from those given to animals. I therefore now use the name of Baird and Girard.

**Symphimus** Cope.

Proc. Amer. Philos. Soc., 1869, p. 150.

**SYMPHIMUS LEUCOSTOMUS** Cope, loc. cit., 1869, p. 150.Tehuantepec, *Sumichrast*.**Helicops** Wagler.

Dum. Bibr., Erp. Gén.

• **HELICOPS BIFRENATUS** Bocourt, Bullet. Soc. Philomath. Paris, 1884, March.  
Darien, Aspinwall, *Tombe*.**Tropidonotus** Kuhl.Isis von Oken, 1826, 205; *Nerodia*, Baird and Girard, Catal.**TROPIDONOTUS RHOMBIFER** Hallowell; Cope, Check-List Batr. Rept. N. Amer., p. 43;  
*Nerodia holbrookii* Bd. Gird. Catal.Masantla, Vera Cruz, *Comision Geográfica Exploradora*.**Eutænia** Baird and Girard.Catal., p. 24; *Thamnophis* Fitz. (nomen nudum), Cope.**EUTÆNIA MELANOGASTER** Wiegmann, Cope, Proc. Amer. Philos. Soc., 1885, p. 386;  
*Tropidonotus melanogaster* Peters, Monatsber. Preuss. Akad., 1864, p. 389.  
Guanajuato, *Dugés*; City of Mexico, *Cope*.**EUTÆNIA MULTIMACULATA** Cope, Proc. Amer. Philos. Soc., November, 1885, 1886,  
p. 284; *Atomarchus multimaculatus* Cope, American Naturalist, 1883, p. 1300.  
City of Chihuahua, *Wilkinson*.**EUTÆNIA PHENAX** Cope, Proceed. Acad. Phila., 1868, p. 134.  
Cordova, Vera Cruz, *Sumichrast*, *Dugés*.**EUTÆNIA SCALARIS** Cope; *Thamnophis scalaris* Cope, loc. cit., 1860, 369.  
Jalapa, *Montes de Oca, Flohr*; Orizaba, *Sumichrast, Dugés*; Teziutlan, Puebla, and  
San José Acateno, Vera Cruz, *Comisión Geográfica Exploradora*.**EUTÆNIA SUMICHRASTI** Cope, loc. cit., 1866, 306; Proceeds. Amer. Philos. Soc., 1884,  
p. 174.Orizaba, *Sumichrast*; Zacualtipan, Hidalgo, *Bernad*.**EUTÆNIA CHRYSOCEPHALA** Cope, Proc. Amer. Philos. Soc., 1884, p. 173.  
Orizaba, Vera Cruz, *Sumichrast*.**EUTÆNIA CYRTOPSIS** Kenn., Proc. Acad. Phila., 1860, p. 333.  
Rinconada, Coahuila, *Couch*; Durango, *Couch*; Gila River, *Webb*; Guaymas, *Cragin*;  
Lower California, *Xantus*; City of Chihuahua, *Wilkinson*.**EUTÆNIA COLLARIS** Jan, Iconographie Générale des Ophidiens, livr. 25, pl. 5, fig. 2;  
*Eutænia cyrtopsis* Kenn., Cope, Proc. Amer. Philos. Soc., 1879, p. 266.  
Guanajuato, *Dugés*; Orizaba, *Sumichrast*; Toluca, *Vasquez*; Guatemala, *Van Patten*;  
Zacualtipan, *Bernad*.  
Perhaps the same as *E. cyrtopsis*.**EUTÆNIA PULCHRILATUS** Cope, Proc. Amer. Phil. Soc., 1884, p. 174.  
? Guanajuato, *Dugés*; Mexico, *Hoege*; Zacualtipan, Hidalgo, *Bernad*; Puebla, *Co-  
mission Geográfica*.**EUTÆNIA INSIGNIARUM** Cope, Proc. Amer. Philos. Soc., 1884, p. 172.  
Valley of Mexico, *Cope, Herrera*; Guanajuato, *Dugés*.**EUTÆNIA FLAVILABRIS**\* Cope, Proc. Acad. Phila., 1866, p. 306; Proc. Amer. Philos.  
Soc., 1884, p. 173.  
Vera Cruz, *Sartorius*; Guanajuato, *Dugés*; Mexico or Toluca, *Hoege*; Acateno, Vera  
Cruz, *Comisión Geográfica*.

\* This species is very near to the next, possibly identical.

**EUTÆNIA MACROSTEMMA** Kennicott, Proc. Acad. Phila., 1860, p. 331, loc. cit., 1866, p. 307.  
City of Mexico, *Rick.*

**EUTÆNIA MEGALOPS** Kennicott, Proc. Acad. Phila., 1860, p. 330; Cope, Proc. Amer. Philos. Soc., 1884, p. 173, 1886.  
City of Chihuahua, *Wilkinson.*

**EUTÆNIA RUTILORIS** Cope, Proc. Amer. Philos. Soc., 1885, p. 388.  
Cozumel Island, *Ridgway.*

**EUTÆNIA PROXIMA** Say, Baird and Girard, Catal., p. 25.  
Tuxpan, Vera Cruz, *Sartorius*; Orizaba, and Tehuantepec west side, *Sumichrast.*  
Regina Baird and Girard.

Catal. Serp. N. Am., 1853, p. 45; *Tretanorhinus* Dum. Bibr., Erp. Gén., vii, p. 348.

**REGINA NIGROLUTEA** Cope; *Tretanorhinus nigroluteus* Cope, Proc. Acad. Phila., 1861, p. 298; *Helicope agassizi* Jan, Elenco Sistemático, and Iconografía Gén., 1863, p. 76. Nicaragua, east coast, *Caldwell, Moser.*

**REGINA DIMIDIATA** Boie; *Tropidonotus dimidatus* Boie, Isis, 1827, p. 535; Cope, Proc. Acad. Phila., 1861, p. 297.  
Jalapa, *Pease.*

**REGINA MESOMELANA** Jan; *Tropidonotus mesomelanus* Jan, Elenco Sistemático, 1863, p. 73; *T. grahami* Günther, Catal. Serp. Brit. Mus., p. 78, pars.  
Guanajuato, *Dugés*; Jicaltepec, Vera Cruz, *Comisión Geográfica.*

**REGINA VALIDA** Kennicott.  
Subspecies **VALIDA** Kennicott, Proc. Acad. Phila., 1860, p. 334.  
Durango, *Couch*; Lower California, *Xantus*; Colima, *Xantus*; San Blas, *Dugés.*  
Subspecies **CELAENO** Cope; *Tropidonotus celano* Cope, Proc. Acad. Phila., 1860, p. 341.  
Cape St. Lucas, Lower California, *Xantus.*

**REGINA QUADRISERIALIS** Fischer; *Tropidonotus quadrисerialis* Fischer, Verhandl. d. Naturwiss. ver. Hamburg, 1879, p. 82, pl. i, fig. 2.  
Mazatlan, *Burghard.*  
Ninia Baird and Girard.

Catal. Serp., 1853, Jan; *Streptophorus* Dum. et Bibr., 1853, vii, p. 514.

**NINIA DIADEMATA** Baird and Girard, loc. cit., 1853, p. 468; *Streptophorus bifasciatus* Duméril, Prodr. Class. Rept. Ophid., t. xxiii, 1853, p. 468; *Id.*, Dum. Bibr., Erp. Gén., vii, 1854, p. 514; *Ninia diademata* Cope, Proc. Acad. Phila., 1860, p. 340; *S. bifasciatus* Jan, Arch. Zool., ii, fasc. i, 1862, p. 26; Bocourt, Miss. Sci. au Mexique, iii, p. 545, pl. xxxii, figs. 10-10a, 10b.  
Vera Cruz, *Sartorius*; Orizaba, *Sumichrast*; Jalapa, *Montes de Oca, Flohr*; Zacualtipan, *Bernad.*

**NINIA ATRATA** Hallowell; *Coluber atratus* Hallowell, Proc. Acad. Phila., 1845, p. 245; *Streptophorus sebae* Dum. Bibr., Erp. Gén., vii, 1854, p. 515.  
Subspecies **TESSELATA** Cope, Journ. Acad. Phila., 1875, p. 145.  
E. Costa Rica, *Gabb.*  
Subspecies **SEBAE** Dum. Bibr., loc. cit., vii, p. 515.  
Eastern Mexico, Tehuantepec, *Sumichrast*; Peten, *Berendt*; Coban, *Hague.*  
Subspecies **COLLARIS** Jan, Arch. Zool., vol. ii, fasc. i, 1862, p. 27.  
Mexico and Guatemala generally.  
Subspecies **DORSALIS** Bocourt, Miss. Sci. au Mex., iii, p. 547.  
Belize, *Bocourt.*  
Subspecies **ATRATA** Hallowell, Proc. Acad. Phila., 1845, p. 245.  
Darien, *Selfridge*; Vera Paz, *Bocourt.*  
Subspecies **MACULATA** Peters; *Streptophorus maculatus* Peters, Monats. Akad. Berl., 1861, p. 924.  
Costa Rica, *Gabb.*

NINIA LABIOSA Bocourt; *Streptophorus labiosus* Bocourt, Miss. Sci. au Mexique, 550  
pl. xxxii, fig. 6.

Guatemala, *Bocourt*.

**Chersodromus Reinhardt.**

Vidensk. Medd. Naturhist. For. Kjobenhavn, 1860, p. 242; *Opisthodon* Peters, Monatsber. Berl. Akad. Wiss., 1861, p. 460.

**CHERSODROMUS LIEBMANNII** Reinhardt, loc. cit., p. 243; *Opisthodon torquatus* Peters, loc. cit.

Vera Cruz, *Sartorius*; Huanusco, *Peters*.

**CHERSODROMUS NIGRICANS** Kroyer, loc. cit., 245.  
"Mexico."

**Tropidoclonium Cope.**

Proc. Acad. Phila., 1860, p. 76; *Microps* Hallowell, 1856, nec., p. 265, Megerlei.

**TROPIDOCLONIUM STORERIOIDES** Cope, loc. cit., 1865, p. 190.  
Plateau, Southern Mountains, *Sartorius*.

**Adelophis Dugés.**

Proc. Amer. Philos. Soc., 1879; p. 265.

**ADELOPHIS COPEI** Dugés, Proc. Amer. Philos. Soc., 1879, p. 266; *Storeria copei* Garman, Serpents of N. America, in Memoirs Mus. Comp. Zoölogy, Cambridge, 1883.  
Guadalaxara, *Dugés*.

**Storeria Baird and Girard.**

*Ichnognathus* Dum. Bibr., Erp. Gén.

**STORERIA DEKAYI** Holbrook; Baird and Girard, Catal., 135.  
Guanajuato, *Dugés*; Jicaltepec, Vera Cruz, *Comision Geográfica*.

**STORERIA TROPICA** Cope, Proc. Amer. Philos. Soc., 1884, p. 175.  
Vera Paz, *Hague*.

**STORERIA OCCIPITOMACULATA** Storer; Baird and Girard, Catal., p. 137.  
Zacualtipan, Hidalgo, *Bernad.*

**Amastridium Cope.**

Proc. Acad. Phila., 1860, p. 370.

**AMASTRIDIUM VELIFERUM** Cope, loc. cit.  
Veraguas, *Mitchill*.

**Hydrocalamus Cope.**

Proc. Amer. Phil. Soc., 1884, p. 176.

**HYDROCALAMUS QUINQUEVITTATUS** Dum. Bibr.; Cope, Proc. Amer. Philos. Soc., 1884, p. 176; *Homalopsis quinquevittatus* Dum. Bibr., Erp. Gén., vii, p. 975; *Calopisma quinquerittatus* Jan, Elenco, p. 75; *Hydrops lubricus* Cope, Proc. Acad. Phila., 1871, p. 217.

E. Tehuantepec, *Streets*; Vera Paz, *Dum. Bibr.*

**Limnophis Günther.**

Ann. Mag. Nat. Hist., 1865, February.

**LIMNOPHIS SEPTEMVITTATUS** Fischer; Cope, Proc. Amer. Philos. Soc., 1884, p. 177  
*Calopisma septemvittata* Fischer, Verhand. Nat.-wiss. Verein, Hamburg, 1879, p. 84,  
pl. i, fig. 3.  
"Mexico," *Fischer*.

**Hydromorphus Peters.**

Monatsber. K. Preuss. Akad., 1859, p. 276.

**HYDROMORPHUS CONCOLOR** Peters, loc. cit., 277.

Costa Rica, Hoffmann.

**Scytale Boie.**

Dum. Bibr., Günther.

**SCYTALE CORONATUM** Schneider, Dum. Bibr., vii, 999.

Subspecies **CORONATUM** Dum. Bibr.

Panama, Sternberg.

**Oxyrrhopus Wagler.**

Nat. Syst. Amphib., 1830, p. 185; Idem et **Brachyrhyon** Dum. Bibr. Erp. Gén., vii, p. 1002.

**OXYRRHOPUS DOLIATUS** Dum. Bibr., Erp. Gén., vii, p. 1020; *Oxyrrhopus petolarius* Linn., Cope, Journ. Acad. Phila., 1875, p. 132 (not of Dum. Bibr.).

Subspecies **SEMICINCTUS** Cope; the bands not extending on the belly.

East Costa Rica, Gabb.

**OXYRRHOPUS OCCIPITOLUTUS** Dum. Bibr., vii, p. 1009.

Darien, Selfridge.

**OXYRRHOPUS CLELIA** Linn.; *Brachyrhyon clelia* Dum. Bibr.; *Scelopophis scytalinus* Cope, Proc. Acad. Phila., 1866, p. 320.

Panama, *Gallaer*; Veraguas, *Mitchell*; Tehuantepec, *Sumichrast*; Yucatan, *Schott*; Darien, Selfridge.

**OXYRRHOPUS PLUMBEUS** Wied; Günther, Catal. Col. Snakes in Brit. Mus., 1858, p. 189; Cope, Journ. Acad. Phila., 1875, p. 131; *Brachyrhyon plumbeum* Dum. Bibr. Erp. Gén., viii.

Costa Rica, Gabb; Tehuantepec, Streets.

**Xenodon Boie.**

Isis von Oken, 1827.

**XENODON ANGUSTIROSTRIS** Peters, Monatsber. Preuss. Akad., 1864, p. 390; Cope, Journ. Acad. Phila., 1875, pp. 107-141.

Panama, *Leconte*; Costa Rica, Gabb; Panama, *Bransford*; Guatemala, *Hague*.

**Tomodon Dum. et Bibr.**

Erp. Gén., vii, p. 932.

**TOMODON STRIGATUS** Günther, Catal. Col. Brit. Mus., 1858, p. 52.

Nicaragua, Günther.

**Manolepis Cope.**

Proc. Amer. Philos. Soc., 1884, p. 176.

**MANOLEPIS NASUTUS** Cope, Proc. Amer. Philos. Soc., 1884, p. 176; *Tomodon nasutus* Cope, Proc. Acad. Phila., 1864, p. 166; Sumichrast, Arch. del. Science Bibl. Univers.

1872, 262; Bocourt, Journal de Zoologie 1876, p. 24.

Pacific coast at Tehuantepec, Sumichrast; Colima Xantus.

**Conophis Peters.**

Monatsber. K. Akad. Berlin, 1860, p. 521.

**CONOPHIS VITTATUS** Peters, Monatsber. Akad. Preuss., 1860, p. 519.

Guatemala, Dow.

**CONOPHIS SUMICHRASTI** Cope, Journ. Acad. Phila., 1875, p. 137.

Subspecies **SUMICHRASTII** Cope, loc. cit.

Guadalaxara, *Major*; W. Tehuantepec, *Sumichrast*.

Subspecies **VIDUUS** Cope, loc. cit.

W. Tehuantepec, *Sumichrast*.

**CONOPHIS CONCOLOR** Cope, Proc. Acad. Phila., 1866, p. 318; Journ. Acad. Phila., 1875, p. 137.

Yucatan, *Scholt.*

**CONOPHIS PULCHER** Cope, Proc. Acad. Phila., 1868, p. 308; Journ. Acad. Phila., 1875, p. 137.

Vera Paz, *Hague*; Chiapas, *Montes de Oca*.

**CONOPHIS LINEATUS** Dum. et Bibr.; *Tomodon lineatus* Dum. et Bibr., Erp. Gén., vii, 936; *Conophis lineatus* Cope, Proc. Acad. Phila., 1871, p. 204; Journ. Acad. Phila., 1875, p. 137.

San José, Costa Rica, *Van Patten*; Nicaragua, *MacNiel*.

**Erythrolamprus** Boie.

*Isis von Oken*, 1826, p. 981; *Coniophanes* Hallowell, Proc. Acad. Phila., 1860, p. 484; Cope, loc. cit., 1860, p. 248; *Glaphyrophis* Jan, 1863, Elenco Syst. Ophid., p. 54.

**ERYTHROLAMPRUS PICEIVITTIS** Cope; *Coniophanes piceivittis* Cope, Proc. Amer. Philos. Soc., 1869, p. 149; *Tachymenis tenuiata* Peters, Monats. Preuss. Akad., 1869, p. 876; *T. piceivittis* Günther, Ann. and Mag. Nat. Hist.

Chihuitan, Western Tehuantepec, *Sumichrast*.

**ERYTHROLAMPRUS IMPERIALIS** Baird, Girard; *Coniophanes imperialis* Cope, Proc. Acad. Phil., 1861, p. 74; *Tenophis imperialis* Baird and Girard, U. S. & Mex. Bound. Surv., ii, Rept., 23, tab. 19, fig. 1; *Rhadinaea imperialis* Cope, *lapsu calami*, Proc. Amer. Philos. Soc., 1885, p. 382.

Tuxpan, *Lincecum*; Jicaltepec, Vera Cruz, *Mision Geográfica*.

**ERYTHROLAMPRUS PROTEROPS** Cope; *Coniophanes proterops* Cope, Proc. Acad. Phila., 1860, 249; *Glaphyrophis lateralis* Jan, Elenco Sist. degli. Ophid. and Archiva, p. l. Zoologia, 1863, p. 94.

Coban, Guatemala, *Hague*; Tehuantepec, *Sumichrast*; Jalapa, *Montes de Oca*; Orizaba, *Sumichrast*.

**ERYTHROLAMPRUS FISSIDENS** Günther; *Coronella fissidens* Günther, Catal. Brit. Mus., 1858, p. 36; *Coniophanes fissidens* Cope, loc. cit., 1860, p. 248; Journ. Acad. Phila., 1875, p. 137.

Costa Rica, Gabb; Western Tehuantepec, *Spear*, *Sumichrast*; Mirador, Vera Cruz, *Sartorius*; Orizaba, *Sumichrast*; Coatzacoalcos, R., *Streets*; Arroyo del Potrero, Vera Cruz, *Comision Geográfica*.

**ERYTHROLAMPRUS VIOACEUS** Hallowell; *Coniophanes violacea* Hallowell, Proc. Acad. Phila., 1860, p. 484.

Nicaragua, *Simpson*.

**ERYTHROLAMPRUS BIPUNCTATUS** Günther; *Coronella bipunctata* Günther, Catal., p. 36; *Coniophanes bipunctatus* Cope, Proc. Acad. Phila., 1866, p. 128; *Glaphyrophis pictus* Jan, Arch. p. Zoologia, 1863, p. 95.

Belize, Parsons; Orizaba, Vera Cruz, and W. Tehuantepec, *Sumichrast*; Guatemala, *Hague*.

**ERYTHROLAMPRUS PUNCTIGULARIS** Cope; *Coniophanes punctigularis* Cope, loc. cit., 1860, p. 248; *Dromicos chitalonensis* Müller, Anmerkungen über Herp. Saml. Basel, p. 29.

Honduras, *Gallaör*; Guatemala, *Bernouilli*; Chiapas, *Montes de Oca*.

**ERYTHROLAMPRUS MELANOCEPHALUS** Peters, Monatsb. Preuss. Akad., 1869, p. 876.  
 "Mexico," Peters.

**ERYTHROLAMPRUS LATERITIUS** Cope; *Coniophanes lateritus* Cope, Proc. Acad. Phila., 1861, p. 524.  
 Guadalaxara, Major.

**ERYTHROLAMPRUS VENUSTISSIMUS** Schlegel; *Coronella renustissima* Schlegel, Essai, ii, p. 53; *Erythrolamprus venustissimus* Dum. et Bibr., Erp. Gén., viii, p. 581, pl. 74; Cope, Journ. Acad. Phila., 1875, p. 141.  
 Costa Rica, Gabb, Van Patten.

#### Hypsiglena Cope.

Proc. Acad. Phila., 1860 (June), p. 240; *Pseudodipsas* Peters, Monatsb. Preuss. Akad. 1860, p. 52 (October); *Comastes* Jan, Elenco Sistemático Ophidi, 1863, p. 102.

**HYPSIGLENA ORNATA** Bocourt; *Comastes ornatus* Bocourt, Bull. Soc. Philomath. Paris, 1884, March, sup., p. 9.

Darien, Viguier.

**HYPSIGLENA TORQUATA** Günther: *Leptodira torquata* Günther, Ann. and Mag. Nat. Hist., v, 3d series, pl. x, fig. A.  
 "Nicaragua and Laguna," Colima, Xantus.

**HYPSIGLENA DISCOLOR** Günther; *Leptodira discolor* Günther, Proc. Zool. Soc. London, 1860, p. 317, June.  
 Oaxaca, Sallé.

**HYPSIGLENA OCHRORHYNCHA** Cope, Proc. Acad. Phila., 1860, p. 246.

Lower California, north to San Diego, Xantus; Guaymas, Cragin; Guanajuato, Dugés; Chihuahua, Wilkinson.

#### Liophis Wagler.

Nat. Syst. Amphib., 1830, p. 187.

**LIOPHIS EPINEPHELUS** Cope, Proc. Acad. Phila., 1862, p. 78; Journ. Acad. Phila., 1875, p. 136.  
 Darien, Michler; Costa Rica, Van Patten, Gabb.

#### Ophibolus Baird and Girard.

Catal. N. Amer. Serp., 1853, p. 82; *Lampropeltis* Fitzinger, Cope, 1860.

**OPHIBOLUS MULTISTRATUS** Kennicott, Proc. Acad. Phila., 1850, p. 328 (*Lampropeltis*). Guanajuato, Dugés.

**OPHIBOLUS DOLIATUS** Linn.

Subspecies **POLYZONUS** Cope, Proc. Acad. Phila., 1860, p. 258; *Lampropeltis micropholis* Cope, loc. cit., 257; *Coronella formosa* Schlegel nom. nud. Costa Rica, Gabb; Darien, Selfridge; Panama, Leconte; Nicaragua, Bransford; Honduras, Guatemala, Gallar; Tehuantepec, Sumichrast; Tuxpan to Vera Cruz and Tehuantepec, Sumichrast, Sartorius, Lincecum; Guanajuato, Dugés; City of Mexico, Herrera; Guadalaxara, Major; Guatemala, Hague.

Subspecies **COCCINEUS**, *Coronella coccinea* Schlegel.

Table-land, Sumichrast; Guatemala, Hague; Guadalaxara, Major; Colima, Xantus; Zacualtipan, Bernad.

**OPHIBOLUS GETULUS** Linn.

Subspecies **CONJUNCTUS** Cope, Proc. Acad. Phila., 1861, p. 301.  
 Cape St. Lucas, Lower California, Xantus.

OPHIBOLUS CALIFORNIAE Blainville; Baird and Girard, Catal., p. 153.  
Cape St. Lucas, *Xantus*.

**Pliocercus Cope.**

Proc. Acad. Phila., 1860, p. 253; *Elapochrus* Peters, Monatsb. Preuss. Akad., 1860, p. 293; *Cosmiosophis* Jan, Archiv. per la Zoologia Modena, 1863, p. 379.

**PLIOCERCUS EURYZONUS** Cope, loc. cit., 1862, p. 72, and 1871, p. 200; *Cosmiosophis splendens* Jan, loc. cit., and Iconogr. Gén. des Ophidiens.  
Darien, *Müller*, *Selfridge*.

**PLIOCERCUS DIMIDIATUS** Cope, Proc. Acad. Phila., 1865, p. 190; Journ. Acad. Phila., 1875, p. 138.

Costa Rica, *Riotte*, *Van Patten*; Nicaragua, *Bransford*, *Moser*.

**PLIOCERCUS SARGI** Fischer, Archiv f. Naturgesch., xxxvii, 1881, pl. xi, figs. 1-3.  
Coban, *Sarg.*

**PLIOCERCUS AEQUALIS** Salvin, Proc. Zool. Soc. London, 1861, p. 227; Müller, Verhandl. Naturforsch. Gesselsch., Basel, 1878, p. 662, pl. iv, fig. A.

Vera Paz, *Salvin*, *Müller*; Teziutlan, Puebla, *Mision Geográfica*; Tuxpan, *Lincoeum*.

**PLIOCERCUS ELAPOIDES** Cope, loc. cit., *Elapochrus deppei* Peters, loc. cit.; *Cosmiosophis tricinctus* Jan, Iconograph. Gén. des Ophidiens, liv., 18, pl. iv, figs. 4-6. *Liophis elapoides* Garman, Mem. Mus. Comp. Zool., Cambridge, 1883, pp. 69-157.  
Puebla, *Comision Geográfica*; Vera Cruz, Orizaba, *Sumichrast*; Mirador, *Sartorius*; Guatemala, *Müller*.

**Dromicus Bibron.\***

Erpétologie Générale, vii, p. 646.

**DROMICUS PUTNAMI** Jan, Elenco Sistematico, et Iconografie Générale.  
Jalisco, *Jan.*

**DROMICUS CLAVATUS** Günther.  
Guatemala, *Günther*.

**DROMICUS CERULEUS** Fischer, Jahrb. d. Wiss. Anstalt, Hamburg, 1885, 103, pl. iv, fig. 7. Coban, *Sarg.*

**Henicognathus Dum. et Bibron.**

Erpét. Générale, viii, p. 328; Cope, Journ. Acad. Phila., 1875, p. 138.

**HENICOGNATHUS ANNULATA** Dum. et Bibr., loc. cit., 335.  
Tobasco, Coban, *Berendt*; Belize, "Agric. Department"; Arroyo del Potrero, Vera Cruz, *Comision Geográfica*.

**Rhadinæa Cope.**

Proc. Acad. Phila., 1863, p. 101; 1868, p. 132.

**RHADINÆA QUINQUELINEATA** Cope, Proc. Amer. Philos. Soc., 1886 (1885), pp. 277.  
Zacualtipan, *Bernad.*; Teziutlan, Puebla, *Comision Geográfica*.

**RHADINÆA FULVIVITTIS** Cope, Journ. Acad. Phila., 1875, p. 139.  
Orizaba, Vera Cruz, *Sumichrast*.

**RHADINÆA SUMICHRASTI** Bocourt; *Henicognathus sumichrasti* Boc., Miss. Sci. Mexique Reptiles, p. 628, pl. xli, fig. 5; *Masticophis* sp., Sumichrast, Bull. de la Société Zool. de France, 1880, p. 183.  
Cocoprieto, Tehuantepec, *Sumichrast*.

\* It is not certain that the species here enumerated really belong to this genus.

**RHADINÆA VITTATA** Jan, *Enicognathus vittatus* Jan, *Prodrome Icon. Gén. Ophid. Archiv.*, p. 1. *Zoologia Modena*, ii, 1863, March; *Id., Iconogr. Gén. Ophid. livr.*, 16, pl. ii, fig. 3; *Bocourt, Miss. Sci. Mex., Rept.*, p. 630, pl. xli, fig. 1; *Dromicus tenuatus* Peters, *Monatsber. k. Preuss. Akad.*, 1863, p. 275, June; *Rhadinæa tenuata* Cope, *Journ. Acad. Phila.*, 1875, p. 139.

*Mexico, Peters.*

**RHADINÆA LOREATA** Günth. *Cope, Journ. Acad. Phila.*, 1863, p. 140; *Dromicus lorenatus* Günther, *Ann. and Mag. Nat. Hist.*, 1868, p. 419, pl. xix, fig. E.

"City of Mexico," Günther.

**RHADINÆA FULVICHEPS** Cope, *Proc. Amer. Philos. Soc.*, 1885, November, 1886, p. 279. *Panama, Nelson.*

**RHADINÆA LACHRYMANA** Cope, *Journ. Acad. Phila.*, 1875, p. 140; *Lygophis lacrymans* Cope, *Proc. Amer. Phil. Soc.*, 1869, p. 154.

*Middle "Mexico," Sumichrast.*

**RHADINÆA DECORATA** Günther, *Cope, Proc. Acad. Phila.*, 1863, p. 101; *Coronella decorata* Günther, *Catal. Coll. Snakes, Brit. Mus.*, 1858, p. 35; *Diadophis decoratus* Cope, *loc. cit.*, 1860.

*Veragua, Mitchell; E. Costa Rica, Gabb; Nicaragua, Bransford; Tierra Caliente Sumichrast; Jicaltepec, Vera Cruz, Mision Geográfica.*

**RHADINÆA IGNITA** Cope, *Journ. Acad. Phila.*, 1875, p. 140; *Dromicus ignitus* Cope, *Proc. Acad. Phila.*, 1871, p. 204.

*Darien, Selfridge.*

**RHADINÆA VERMICULATICEPS** Cope, *Journ. Acad. Phila.*, 1875, p. 139; *Teniophis vermiculaticeps* Cope, *Proceeds. Acad. Phila.*, 1860, p. 249.

*Veragua, Mitchell; Costa Rica, Van Patten.*

**RHADINÆA SERPERASTRA** Cope, *loc. cit.*, 1871, p. 212; *Journ. Acad. Phila.*, 1875, p. 140. *Costa Rica, Gabb.*

**RHADINÆA GODMANI** Günther; Cope, *Journ. Acad. Phila.*, 1875, p. 139; *Dromicus godmani* Günther, *Ann. and Mag. Nat. Hist.*, 1865, February.

*Guatemala, Godman.*

#### Diadophis Baird and Girard.\*

*Catal. Serp. N. Amer.*, 1853, p. 112.

**DIADOPHIS PUNCTATUS** Linn.,† *Baird, Girard; Ablabes punctatus* Dum., *Bibr.*, vii, p. 310; Jan, *Elenco.*

Subspecies *ARNYI* Kennicott; *Diadophis arnyi* Kenn., *Proc. Acad. Phila.*, 1859, p. 99.

*Mirador, Vera Cruz, Sartorius; Guanajuato, Dugés; Zacualtipan, Bernad.*

Subspecies *REGALIS* Baird, Girard.

"*Sonora, Graham.*"

*Trimetopon* Cope.

*Proc. Amer. Philos. Soc.*, 1884, p. 177; an *Hydromorphus* Peters?

**TRIMETOPON GRACILE** Günther, Cope, *loc. cit.*; *Ablabes gracilis* Günther, *Ann. and Mag. Nat. Hist.*, 1872, p. 18.

*Costa Rica, Günther.*

\* I at one time placed the species of Rhadinæa known to me in this genus, as they are very nearly allied, and in this I have been followed by Garman. But they have no scale pores, while there is a single pore on the scales of Diadophis. I cannot therefore unite them. Diadophis is not characterized by the presence of two preoculars, as supposed by Jan.

† Of two specimens from Guanajuato one has seven, the other eight superior labials; one has two preoculars, while a specimen from the State of Vera Cruz has but one.

Contia Baird and Girard.

Catal. N. Amer. Serpentes, 1853, p. 110; Cope, Proc. Acad. Phila., 1862, p. 339; *Eirenis* Jan, Elenco Sist., 42-48, 1863.

CONTIA CALLIGASTER Cope, Journ. Acad. Phila., 1875, p. 146.  
Cordilleras of Costa Rica, *Gabb.*

CONTIA PACHYURA Cope, loc. cit., p. 145.  
E. Costa Rica, *W. M. Gabb.*

CONTIA MICHOCANENSIS Dugés, Proc. Amer. Philos. Soc., 1884, p. 178.  
Michoacan, *Dugés.*

Sympololis Cope.

Proc. Acad. Phila., 1861, p. 524; *Chilorkina* De Filippi, Jan, Arch. per la Zoologia, Modena, ii, 57, 1862.

SYMPHOLIS LIPPIENS Cope, loc. cit., 1861, p. 524; *Chilorkina villarsii* De Filippi, Jan, loc. cit. et Iconogr. Gén. des Ophidiens, 48 Livr., pl. i, f. 5.  
Guadalaxara, *Major.*

Ficimia Gray.

Catal. Snakes Brit. Mus., p. 80, 1849; *Amblymetopon* Günther, Catal. Colubrine Snakes in Brit. Mus., 1858, p. 7.

FICIMIA OLIVACEA Gray, loc. cit.; *F. elaeochroma* Jan, Arch. Zool. Modena, 1862, p. 58; *Amblymetopon variegatum* Günther, Catal. Brit. Mus., 1858, p. 7.  
Zacualtipan, *Bernad.*; Tuxpan, *Lincecum*; Orizaba, *Sumichrast*; Tehuantepec, *Sumichrast.*

Gyalopium Cope.

Proc. Acad. Phila., 1860, p. 243.

GYALOPIUM PUBLIUM Cope, Amer. Naturalist, 1884, p. 163; *Ficimia publia* Cope, Proc. Acad. Phila., 1866, p. 126; *Ficimia ornata* Bocourt, Miss. Sci. Mex., 1883, p. 571, pl. xxv, fig. 10.  
Yucatan, *Schott.*

Stenorhina Dum. et Bibr.

Erp. Gén., vii, 865; *Microphis* Hallowell, Journ. Acad. Phila., 1855-'58, p. 33.

STENORHINA DEGENHARDTII Berthold; *Calamaria degenhardtii* Berthold, Ueber N. Rept. New Grenada, 1846, p. 8, pl. i, f. 3-4.

Subspecies DEGENHARDTII Berth., loc. cit.; *Stenorhina ventralis* Dum. et Bibr.

Erp. Gén., vii, p. 867; *Stenorhina lactea* Cope, Proc. Acad. Phila., 1861, p. 303.

Guatemala, *Dow*; Costa Rica, *Gabb*; Coatzacoalcos R., *Streets*; W. Tehuantepec, *Sumichrast*; Cordova, *Sumichrast*; Mirador, *Sartorius*.

Subspecies APIATA Cope, Journ. Acad. Phila., 1875, p. 142.

Tehuantepec, *Sumichrast.*

Subspecies FREMINVILLEI Dum. et Bibr.; *Sternorhina freminvillei* Dum. et Bibr., vii, 868; *Microphis quinquelineatus* Hallow., loc. cit.

Costa Rica, *Van Patten*; Honduras, *Woodhouse*; Guatemala, *Hague*; Tehuantepec, *Sumichrast.*

Chiomeniscus Cope.

Proc. Acad. Phila., 1860, p. 339; *Bergenia* Steindachner, Reise der Navara, 1876, p. 92.

CHIOMENISCUS MEXICANUS Steindachner; *Bergenia mexicana* Stein., loc. cit., 92, fig. p. 93.

“Mexico,” *Steindachner.*

CHIOMENISCUS STRAMINEUS Cope, Proc. Acad. Phila., 1860, p. 339.  
Cape San Lucas, Lower California, *Xantus*, *Belding.*

**CHILOMENISCUS CINCTUS** Cope, Proc. Acad. Phila., 1861, p. 303.

Guaymas, Sonora, *Mus. Comp. Zoology.*

**Geagras** Cope.

Journ. Acad. Phila., 1875, p. 141; *Pseudoficimia* Bocourt, Miss. Sci. Mex., 572; *Enulius* Bocourt, loc. cit., 536, nec copei; *Sphenocalamus* Fischer, Oster Programm des Ak. Gymnas. Hamburg, 1863.

**GEAGRAS REDIMITUS** Cope, Journ. Acad. Phila., 1875, p. 141; *Sphenocalamus lineolatus* Fisch., loc. cit., separate p. 5, pl. ii, s. 3, 4, 5.  
Tehuantepec, *Sumichrast*; Mazatlan, *Fischer*.

**GEAGRAS FRONTALIS** Cope, Journ. Acad. Phila., 1875, p. 142; *Toloca frontalis* Cope, Proc. Acad. Phila., 1864, p. 147; *Pseudoficimia pulchra* Bocourt, Miss. Sci. Mex., 1883, 572, pl. xxxv, fig. 12.

Colima, *Xantus*; Guadalaxara, *Major*.

**GEAGRAS SUMICHRASTI** Bocourt, Cope, Amer. Naturalist, 1884, p. 162; *Enulius sumichrasti* Bocourt, Mis. Sci. Mex., p. 538, pl. xxxi, fig. 6.  
W. Tehuantepec, *Sumichrast*.

**GEAGRAS LONGICAUDATUS** Cope, Amer. Naturalist, 1884, p. 162; *Enulius murinus* Bocourt, Mis. Sci. Mex., p. 537, pl. xxxv, fig. 9, nec Copei.

W. Tehuantepec, *Sumichrast*.

**Toloca** Kennicott.

U. S. & Mex. Bound. Surv., ii, 1859, p. 23; *Achirina* Jan, op. cit., 1862, p. 61.

**TOLUCA LINEATA** Kenn., loc. cit.; *Achirina de flippii* Jan, op. cit., 1862, p. 61.

Valley of Mexico, *Potts*; Puebla, *Boucard*; Toluca (?), *Hooge*.

**Conopsis** Günther.

Catal. Col. Serp. Brit. Mus., 1858, p. 47; *Exorhina* Jan, Arch. Zool., 1862, p. 62.

**CONOPSIS NASUS** Günther, loc. cit.; *Exorhina maculata* Jan, loc. cit.; *Conopsis maculatus* Bocourt, l. c., p. 564, pl. xxxv, f. 3.  
"Mexico," *Boucard*.

**Chionactis** Cope.

Proc. Acad. Phila., 1860, 241; Journ. Acad. Phila., 1875, p. 142.

**CHIONACTIS DIASII** Cope, Proc. U. S. Nat. Mus., 1886, p. 188; *Conopsis lineatus* Boc. l. c., p. 565, pl. xxxv, fig. 4; nec *Toloca lineata* Kennicott.  
Puebla, *Comision Geográfica*.

**Rhinochilus** Baird, Girard.

Catal. Rept. N. Amer., Serpents, 1853, p. 120.

**RHINOCHILUS ANTONII** Dugés, Proc. Amer. Philos. Soc., 1886, p. 290.  
Mazatlan *Dugés*.

**Ogmius** Cope.

Proc. Amer. Philos. Soc., 1869, p. 162; *Oxyrhina* Jan, Arch. p. Zoologia, 1862, p. 59, nec *Agassizii*.

**OGMIUS ACUTUS** Cope, Proc. U. S. Nat. Mus., 1886, p. 189; *O. variane* Cope, Proc. Amer. Philos. Soc., 1869, p. 162, not of Jan.  
W. Tehuantepec, *Sumichrast*.

**OGMIUS VARIANS** Jan; *Oxyrhina varians* Jan, loc. cit., p. 60.  
Vera Cruz (?), *Sumichrast*.

**Elapomorphus** Wiegmann.

Dum. et Bibr., vii, p. 832.

**ELAPOMORPHUS MEXICANUS** Günther, Ann. and Mag. Nat. Hist., 1862, p. 57.

“Mexico.”

**Procinura** Cope.

Proc. Amer. Philos. Soc., 1879, p. 262.

**PROCINURA ÆMULA** Cope, loc. cit.

Batopilas, Chihuahua, Wilkinson.

**Scolecophis** Cope.

Proc. Acad. Phila., 1860, p. 259.

**SCOLOCOPHIS ATROCINCTUS** Schlegel; Cope, Proc. Acad. Phila., loc. cit.; Bocourt, Miss.

Sci. Mex., p. 577, pl. xxxvii, fig. 2; *Calamaria atrocincta* Schlegel, Essai sur la Phys. des Serpents, 1837, i, p. 184; *Homalocranum atrocinctum* Dum. et Bibr.; *Elaps zonatus* Hallow.; *Scolecophis zonatus* Cope, loc. cit.; *Tantilla atrocincta* Cope, Journ. Acad. Phila., 1875, p. 145.

Honduras, Woodhouse; Vera Paz, Bocourt; Toluca, Vasquez.

**Tantilla** Baird and Girard.

Catal. N. Amer. Serpents, 1853, p. 31; *Homalocranum* Dum. et Bibr., Erp. Gén., vii, p. 855; *Lioninia* Hallowell, Proc. Acad. Phila., 1860, p. 484.

**TANTILLA MESTA** Günther, Cope, loc. cit., 1866, p. 126; *Homalocranum mestum*; Günther, Ann. Mag. Nat. Hist., 1863.

Yucatan, Schott; Peten, Morelet.

**TANTILLA SCHISTOSA** Bocourt; *Homalocranum schistosum* Bocourt, Miss. Sci. Mexique, p. 584, pl. xxxvi, fig. 10.

Vera Paz, Boucard.

**TANTILLA MELANOCEPHALA** Schlegel, Dnm. et Bibr., Erp. Gén., vii, p. 859; Cope, Journ. Acad. Phila., 1875, p. 142.

Central Costa Rica, Van Patten; Nicaragua, MacNiel; Guatemala, Bourier.

**TANTILLA CORONATA** Baird and Girard, Catal. Serp., p. 131; Cope, Journ. Acad. Phila., 1875, p. 144; *Homalocranum coronatum* Bocourt, Miss. Sci. Mex., 589, pl. xxxvii, fig. 5.

Guanajuato, Dugés.

**TANTILLA DEPPEI** Bocourt; *Homalocranum deppei* Bocourt, Miss. Sci. Mexique, p. 584, pl. xxvi, fig. 11.

Mexico, Ghiesbrecht.

**TANTILLA CANULA** Cope, Journ. Acad. Phila., 1875, p. 144; *Tantilla vermiciformis* “Hallow.,” Cope, Proc. Acad. Phila., 1836, p. 126; nec Hallowelli.

Yucatan, Schott.

**TANTILLA TÆNIATA** Bocourt; *Homalocranum tæniatum* Bocourt, Miss. Sci. Mex., p. 587, pl. xxxvii, fig. 3.

Guatemala, Bourier.

**TANTILLA RUBRA** Cope, Proc. Acad. Phila., 1875; Journ. Acad. Phila., 1875, p. 144. Tehuantepec, Sumichrast.

**TANTILLA ARMILLATA** Cope, Journ. Acad. Phila., 1875, p. 143; *T. melanocephala* var. Cope, Proc. Acad. Phila., 1871, p. 205.

Costa Rica, Van Patten.

**TANTILLA SEXFASCIATA** Fischer; *Homalocranum sexfasciatum* Fischer, Abhand. Natur.-Wiss. Ver. Bremen, 1881, p. 225.

Costa Rica, Lohmann.

**TANTILLA RETICULATA** Cope, loc. cit., 1860, p. 77.

Veragua, Panama, *Mitchell*.

**TANTILLA VIRGATA** Günther; *Microdromus virgatus* Günther, 1872, p. 17, pl. iv; *Homalocranium virgatum* Bocourt, Miss. Sci. Mex., p. 585, pl. xxxvi, fig. 4.

Costa Rica, *Salvin*.

**TANTILLA VERMIFORMIS** Hallowell; Cope, Proc. Acad. Phil., 1861, p. 74; *Lioninia vermiformis* Hallowell, loc. cit., 1860, p. 484.

Nicaragua, *Stimpson*.

**TANTILLA MINIATA** Cope, Proc. Acad. Phila., 1863, p. 100; ("miniator," errore typogr.) *Mirador*, Vera Cruz, *Sartorius*.

**TANTILLA BIMACULATA** Cope, Journ. Acad. Phila., 1875, p. 143. Mazatlan, *Bischoff*.

**TANTILLA PLANICEPS** Blainville, Baird and Girard, Catal., p. 154. Lower California, *Botta*.

**TANTILLA CALAMARINA** Cope, Proc. Acad. Phila., 1866, p. 320.

Guadalaxara, *Major*; Puebla, *Comision Geográfica*; Valleys of Toluca or Mexico, *Höge*.

**Cercocalamus** Günther.

Ann. and Mag. Nat. Hist., 1863, January.

**CERCOCALAMUS COLLARIS** Günther, loc. cit., pl. iii, fig. A.

"Central America," *Günther*.

**Enulius** Cope.

Peabody Acad. Sciences, Salem, 1869, p. 80; Proc. Amer. Philos. Soc., 1870, p. 558.

**ENULIUS MURINUS** Cope, Proc. Amer. Philos. Soc., 1870, p. 558.

Nicaragua, *MacNeil*.

**Leptocalamus** Günther.

Ann. Mag. Nat. Hist., 1872, p. 16.

**LEPTOCALAMUS UNICOLOR** Fischer; *Geophis unicolor* Fischer, Abhandl. d. Natur.-Wiss. Vereins Bremen, 1881, p. 227.

"Mexico," *Fischer*.

As Fischer remarks, this species should be generically distinguished from *Rhabdozoma* on account of the presence of a long posterior maxillary tooth, the dentition being syncranterian. The other characters are, two nasal scuta; loreal reaching the eye; no preocular; one pair genials; anal double.

**Elapoidis** Boie.

*Isis* von Oken, 1827, p. 519; *Dum. Bibr., Erp. Gén.*, vii, p. 123; *Jan, Arch. p. Zoologia*, 1862; *Catostoma* Wagler, *Nat. Syst. d. Amphib.*, 1830, p. 194; *Geophis* Wagler, loc. cit., p. 342.

**ELAPOIDIS CHALYBÆUS** Wagl.; *Catostoma chalybæum* Wagler, *Nat. Syst. Amphib.*, 1830, p. 194; *Elapoidis sieboldii* Jan, *Arch. per la Zoologia*, Modena, ii, 1862, p. 21; *Iconographie d. Ophidiens*, livr. 12, pl. i, fig. 4; *Geophis chalybæus* "Wagler," Bocourt, *Miss. Sci. Mex.*, p. 530.

Guatemala, *Bocourt*; mountains south of plateau, *Sartorius*.

**ELAPOIDIS PSEPHOTUS** Cope; *Catostoma psephotum* Cope, *Journ. Acad. Phila.*, 1875, p. 146.

Costa Rica, *Gabb*.

**ELAPOIDIS DOLICOCEPHALUS** Cope; *Colobognathus dolichocephala* Cope, Proc. Acad. Phila., 1871, p. 211; *Catostoma dolichocephalum* Cope, Journ. Acad. Phila., 1875, p. 147.  
 Costa Rica, *Van Patten*.

**ELAPOIDIS BRACHYCEPIUS** Cope; *Colobognathus brachycephala* Cope, loc. cit., 1871, p. 211; *Calostoma brachycephalum* Cope, Journ. Acad. Phila., 1875, p. 147.  
 Costa Rica, *Van Patten*.

**ELAPOIDIS DUGÉSI** Bocourt; *Geophis Dugési* Bocourt, Miss. Sci. au Mexique, p. 573, pl. xxxvii, fig. 1.  
 Tangancicuaro, *Dugés*.

**ELAPOIDES FASCIATUS** Fischer; *Virginia fasciata* Fischer, Jahrb. d. Wiss. Anst. Hamburg, ii, 1885, p. 95.  
 Guatemala, *Sarg.*

**Rhabdosoma** Dum. Bibr.

Erpétologie Générale, vii, p. 91; Cope, Proc. Amer. Phil. Soc., 1885, p. 385; *Catostoma* et *Geophis* pars auctorum.

**RHABDOSOMA BICOLOR** Günther; *Geophis bicolor* Günther, Ann. and Mag. Nat. Hist., 1868, p. 416; *R. hoffmanni* Jan, Iconographie Générale des Ophidiens, livr. 12, pl. ii, fig. 3, nec *Colobognathus hoffmanni* Peters.  
 Near city of Mexico, *Günther*.

**RHABDOSOMA ZEBRINUM** Jan, Arch. per la Zoologia Modena, 1862, p. 15; Bocourt, Miss. Sci. Mexique, pl. xxxi, fig. 1, p. 539.  
 Tehuantepec, *Bocourt*.

**RHABDOSOMA ROSTRALE** Jan; *Elapoidis rostralis* Jan, Iconogr. Gén. des Ophid., 12 livr., pl. ii, fig. 4; *Geophis rostralis* Bocourt, Miss. Sci. Mex., 533, pl. xxxi, fig. 10. ? Hab.

**RHABDOSOMA NASALE** Cope; *Catostoma nasale* Cope, Proc. Acad. Phila., 1868, p. 131; *Colobognathus nasalis* Cope, loc. cit., 1871, p. 212.  
 Central Costa Rica, *Van Patten*.

**RHABDOSOMA GUTTULATUM** Cope, Proc. Amer. Philos. Soc., 1885, p. 385.  
 State of Vera Cruz, *Sumichrast*, *Sartorius*.

**RHABDOSOMA MUTITORQUES** Cope, Proc. Amer. Philos. Soc., 1885, p. 384.  
 Zacualtipan, Northeast Hidalgo, *Bernad.*

**RHABDOSOMA LONGICEPS** Cope, Proceeds. U. S. National Mus., 1886, p. 189.  
 San José, Acateno, Vera Cruz, *Comision Geográfica*.

**RHABDOSOMA SEMIDOLIATUM** Dum. Bibr., Erp. Gén., vii, p. 93, 1854; *Elapoidis semidoliatus* Jan, Arch. p. la Zool. Modena., 1862, p. 22; Icon. Gén. des Ophidiens, livr. 12, pl. ii, fig. 1; *Geophis semidoliatus* Bocourt, Miss. Sci. Mex., p. 534, pl. xxxi, fig. 7.  
 State of Vera Cruz, *De Oca*, *Sumichrast*, *Sartorius*; Jalapa, *Flohr*; Misantla and Jalapa, Vera Cruz, *Comision Geográfica*; Zacualtipan, *Bernad.*

**RHABDOSOMA MOESTUM** Günther; *Geophis moestus* Günther, Ann. Mag. Nat. Hist., 1872, p. 15.  
 Costa Rica, *Günther*.

**Adelphicus** Jan.

Arch. p. la Zool., ii, fasc. i, p. 18, 1862; Bocourt, Miss. Sci. Mex., 553; *Rhegnops* Cope Proc. Acad. Phila., 1866, p. 128.

**ADELPHICUS SARGII** Fischer; Jahrbuch d. Wiss. Anstalt., Hamburg, ii, 1885, p. 92.  
 Guatemala, *Sarg.*

**ADELPHICUS VISONINUS** Cope; *Rhegnops visoninus* Cope, loc. cit., 1866, p. 128.  
 Honduras, *Parsons*.

**ADELPHICUS QUADRIVIRGATUS** Jan, Arch. p. la Zool., ii, 1862, p. 18; Icon. Gén. des Ophidiens, livr. 12, pl. iii, fig. 5; Bocourt, Miss. Sci. au Mex., 554, pl. xxxii, fig. 11.  
Vera Paz, Bocourt; Jicaltepec, Vera Cruz, *Mision Geográfica*.

**Colophrys** Cope.

Proc. Acad. Phila., 1868, p. 130.

**COLOPHRYS RHODOGASTER** Cope, loc. cit., 1868, p. 130.

Costa Rica, *Van Patten*; Yucatan, *Schott*; Guatemala, *Bocourt*.

**Geophidium** Peters.

Monats. K., Preuss. Akad. Wiss., 1861, p. 923.

**GEOPHIDIUM DUBIUM** Peters, loc. cit.

W. Guatemala, *Bocourt*; Tehuantepec, *Peters*.

**Colobognathus** Peters.

Monats. K., Preuss. Akad., 1859, p. 216; 1863, p. 214.

**COLOBOGNATHUS HOFFMANNI** Peters, loc. cit.; Cope, Journ. Acad. Phila., 1875, p. 148.

Costa Rica, *Hoffmann*, *Gabb*.

**PROTEROGLYPHA.**

**ELAPIDÆ.**

**Elaps** Schneider.

Dum. et Bibr., vii, p. 1191.

**ELAPS DECORATUS** Jan, Prodr., 1859, p. 14.

“Mexico,” *Jan.*

**ELAPS MARCGRAVII** Wied.

Subspecies *LATICOLLARIS* Peters, Monats. K., Preuss. Akad., 1869, p. 877.

**ELAPS ELEGANS** Jan, Prodr., 1859, p. 13.

Vera Cruz and N. E. Mexico, *Sartorius*.

**ELAPS AGLAEOPE** Cope, Proc. Acad. Phila., 1859, p. 344.

Honduras, *Leconte*; Peten, *Berendt*.

**ELAPS EPHIPPIFER** Cope, Proc. Amer. Philos. Soc., 1885 (6) p. 281; *E. aglaope* Cope, loc. cit., 1869, p. 162.

W. coast Tehuantepec, *Sumichrast*.

**ELAPS EURYXANTHUS** Kennicott, Proc. Acad. Phila., 1860, p. 337.

Guyanas, *Cragin*; Batopilas, Chihuahua, *Wilkinson*.

**ELAPS NIGROCINCTUS** Girard, U. S. Astronom. Exped., p. 281; Cope, Journ. Acad. Phila., 1875, p. 148.

Panama, *Leconte*, *Nelson*; Nicaragua, *MacNiel*, *Bransford*; Costa Rica, *Van Patten*, *Gabb*, *Zeledon*; Yucatan, *Schott*; San Salvador, *Dow*; Guatemala, *Hague*; Tehuantepec, *Sumichrast*.

**ELAPS HIPPOCREPIS** Peters, loc. cit., p. 21.

**ELAPS FULVIUS** Linn., Baird and Girard, Catal., p. 21.

Guanajuato, *Dugés*.

**ELAPS CORALLINUS** Linn.

Subspecies *CREBRIPUNCTATUS* Peters, Monats. K., Akad. Preuss., 1869, p. 877.

“Northern Mexico,” *Peters*.

**ELAPS MULTIFASCIATUS** Jan, Icono. Gén. Oph., p. 10; Cope, Proc. Acad. Phila., 1871, p. 209; Journ. Acad. Phila., 1875, p. 148.

W. Costa Rica, *Van Patten*; Nicaragua, *Bronford*.

**ELAPS APIATUS** Jan, Prodr., 1859, p. 11.

"Mexico," Jan; Coatzacoalcos, R., Streets; Jicaltepec, Vera Cruz, *Comision Geográfica*; Orizaba, Vera Cruz, *Sumichrast*.

**ELAPS HYPOSTEMA** Jan, Elenco Sist., 1863, p. 113.

"Mexico," Jan.

**ELAPS BERNADI** Cope, sp. nov.

This species is founded on a specimen from Zacualtipan, Hidalgo, sent me by Dr. Santiago Bernad. It is allied to the *E. epistema* D. & B., but has better claim to be regarded as a species than that form. The head and nape are black above and below, except a band of yellow from lip to lip crossing the middle of the occipital plates. The body is red, and is marked by forty-one broadly oval black spots placed transversely and separated by narrow interspaces of two and three scales length. The red spots are not light-bordered, and the red scales have no markings. The belly is unspotted. The tail is of lighter color than the body, and is marked by seven black rings.

Gastrosteges, 218; anal divided; urosteges, 37. Total length, 807<sup>mm</sup>; length of tail, 90<sup>mm</sup>.

Zacualtipan, *Bernad.*

**ELAPS EPISTEMA** Dum. et Bibr., vii, p. 1222.

"Mexico," *Dum. et Bibr.*

**ELAPS ORNATISSIMUS** Jan, Prod. d'une Icono., &c., 1859, p. 10; Cope, Journ. Acad. Phila., 1875, p. 148.

"Mexico," Jan; W. Costa Rica, *Van Patten*; Belize, *Parsons*; Coatzacoalcas, R., Streets.

• **ELAPS CIRCINALIS** Dum. et Bibr., Cope, Journ. Acad. Phila., 1875, p. 148.  
Talamanca, Costa Rica, *Gabb*.

## HYDROPHIDÆ.

### *Pelamis* Daud.

Rept., vii, 366, 1802.

**PELAMIS BICOLOR** Daud., loc. cit.; Cope, Journ. Acad. Phila., 1875, p. 148.

Pacific coast Panama, *Leconte*, *Dow*; Pacific coast Costa Rica, *Van Patten*; Pacific coast Guyamas. ?

## SOLENOGLYPHA.

### CROTALIDÆ.

#### *Teleuraspis* Cope.

Proc. Acad. Phila., 1859, p. 338.

**TELEURASPIS SCHLEGELII** Berth., Cope, Journ. Acad. Phila., 1875, pp. 157, 149; Proc. Acad. Phila., 1860, p. 345.

Var. *SCHLEGELII* Berth., Cope, loc. cit.

Veraguas, *Mitchell*; Costa Rica, *Gabb*; Panama, *Bronford*.

## Ophryacus Cope, gen. nov.

This genus differs from *Bothrops* in the prolongation of one of the superciliary scales into a horn-like process.

OPHYRACUS UNDULATUS Jan, Cope, loc. cit.; *Atropus undulatus* Jan, Rev. et Mag. de Zool., 1859, p. 157; Prodr. Icon. des Oph., p. 157.

Central Mexico, *Sumichrast*; Actopam, Vera Cruz, *Comision Geográfica Exploradora*.

## Bothriechis Peters.

*Thamnocenchris* Salvin, Proc. Z. S. London, 1860, 459.

BOTHRIECHIS NIGROVIRIDIS Peters, Monats. K., Preuss. Akad., 1859, p. 278; Cope, Proc. Acad. Phila., 1859, p. 345; Journ. Acad. Phila., 1875, p. 150.

Costa Rica, *Gabb*, *Van Patten*.

BOTHRIECHIS AURIFER Salvin, Cope, Proc. Acad. Phila., 1871, p. 205; *Thamnocenchris aurifer* Salvin, Proc. Zool. Soc. London, 1860, p. 459 tab.; Ann. Mag. Nat. Hist., 1861, p. 325.

Peten, Guatemala, *Salvin*.

BOTHRIECHIS LATERALIS Peters, Monats. K., Akad. Preuss., 1862, p. 674; *Bothrops bilineatus* Peters, loc. cit., 1859, p. 278; *Bothrops bicolor* Bocourt, Ann. des Sci. Nat., 1868, p. 201.

Western Guatemala, *Bocourt*.

BOTHRIECHIS BERNOUILII Müller, Mittheilungen a. d. Herpet. Sammlung Mus. Basel (sine origine et dato), p. 11, pl. iii, fig. A.

West coast of Guatemala, *Bernouilli*.

## Bothriopsis Peters.

Monats. Akad. Berlin, 1851, p. 359; Cope, emend. Proc. Acad. Phila., 1871, p. 208.

BOTHRIOPSIS SCUTIGERA Fischer; *Bothriechis scutigera* Fischer, Archiv. f. Naturgeschichte, 1850, p. 208, pl. viii, figs. 8, 9.

Guatemala, *Fischer*.

BOTHRIOPSIS GODMANI Günther; *Bothriechis godmani* Günther, Ann. Mag. Nat. Hist., 1861, vii, p. 325; *Bothriopsis godmani* Cope, loc. cit.

Guatemala, *Hague*.

BOTHRIOPSIS TRIANGULIGERA Fischer; *Bothriechis trianguligera* Fischer, Oster., Programm. des Akad. Gymnasiums, Hamburg, 1883, sep., p. 13.

Guatemala, *Peper*.

BOTHRIOPSIS OPHRYOMEGAS Bocourt, Cope, Proc. Acad. Phila., 1871, p. 208; *Bothrops ophryomegas* Bocourt, Ann. Sci. Nat., 1868, p. 201.

"Central America," *Bocourt*.

BOTHRIOPSIS AFFINIS Bocourt, Ann. Sci. Nat., 1868, p. 201; *B. affinis* Cope, Journ. Acad. Phila., 1875, p. 150; *Teleuraspis mexicanus* Cope, Proc. Acad. Phila., 1859, p. 339; *Bothriechis mexicanus* Cope, loc. cit., 1860, p. 345; nec *Atropus mexicanus* Dum. et Bibr.

Mexico, as far north as Tuxpan, and Central America to Costa Rica; *Sartorius*, *Sumichrast*; *Zacualtipan*, *Bernad*.

BOTHRIOPSIS MEXICANUS Dum., Bibr., Cope, loc. cit., 1871, p. 209; *Atropus mexicanus* Dum. et Bibr., Erp. Gén., viii, p. 1521, tab. 83, bis; *Atropos nummifer* Rüppel, Verzeichn. Senck. Mus. Frankf., p. 21; Fischer, Archiv f. Naturg., 1880, p. 22, viii, figs. 10-12; (var.) *Teleuraspis nummifer* Günther, Ann. Mag. Nat. Hist., 1867, March, tab. iii, f. c.; nec Copei, Proc. Acad. Phila., 1859, 339, et 1860, 345—*B. affinis* Bocourt.

Tierra Caliente of Mexico; Guatemala, *Hague*.

BOTHRIOPSIS BRACHYSTOMA Cope, Proc. Acad. Phila., 1871, p. 208; *Teleuraspis castelnaudi* var. *brachystoma* Cope, loc. cit., 1859, p. 339; *Bothriechis brachystoma* Cope, loc. cit., 1861, p. 295.

Nicaragua, *Moser*; Tehuantepec, *Sumichrast*; Peten, Guatemala, *Berendt*.

BOTHRIOPSIS PROBOSCIDEUS Cope, Journ. Acad. Phila., 1875, p. 150, pl. 27, fig. 3.  
Sipurio, E. Costa Rica, *Gabb*.

**Porthidium Cope.**

Proc. Acad. Phila., 1871, p. 207.

Perhaps to be united with *Bothriopsis*.

PORTHIDIUM NASUTUM Bocourt; Cope, loc. cit., et Proc. Amer. Philos. Soc., 1879, p. 271;  
*Bothrops nasutus* Bocourt, Ann. d. Sciences Nat., Paris, 1868, p. 202.  
Guatemala, *Bocourt*; E. Costa Rica, *Zeledon*.

**Ancistrodon Beauvois.**

ANCISTRODON BILINEATUS Günther, Ann. and Mag. Nat. Hist., 1863, November.  
West slope Guatemala, *Hague*; Tehuantepec, *Sumichrast*; Nicaragua, *MacNiel*.

**Bothrops Wagler.**

BOTHROPS ATROX Linn., Cope, Journ. Acad. Phila., 1875, p. 151.

Panama, *Nelson*; Costa Rica, *Gabb*; San Juan, Nicaragua, *Xantus*; Orizaba, *Sumichrast*; Mirador, Vera Cruz, *Sartorius*; Tuxpan, *Lincecum*.

**Lachesis Daudin.**

LACHECIS STENOPHRYS Cope, Journ. Acad. Phila., 1875, p. 152.

Sipurio, E. Costa Rica, *Gabb*.

**Crotalophorus Gray.**

*Caudisona* Fitzinger, Wagner, nec Laurentii; *Sistrurus* Garman.

CROTALOPHORUS RAVUS Cope, Proc. Amer. Philos. Soc., 1885, 382; *Caudisona rava* Cope, Proc. Acad. Phila., 1865, p. 191.  
South table land of Mexico, *Sartorius*; Puebla, *Comision Geográfica*.

**Crotalus Linn.**

*Caudisona* Laurenti; *Crotalophorus* Linn., pars; *Uropsophus* Wagler.

CROTALUS DURISSUS Linn., Dum. et Bibr., vii, p. 1465; *C. horridus* Dum. et Bibr. Erp. Gén., vii, p. 1472.

Brazil to Vera Cruz; Yucatan, *Schott*; Tehuantepec, *Sumichrast*; Coban, *Hague*; San Salvador, *Dow*.

CROTALUS BASILISCUS Cope, Proc. Acad. Phila., 1864, p. 166; *Crotalus rhombifer* Latreille, Dugés, *Naturaleza Mexico*, 1877, p. 22; nec Latreillei.

Pacific coast, Colima (*Xantus*); Plateau, Guanajuato, *Dugés*; Valley of Mexico, Puebla, *Comision Geográfica*.

CROTALUS POLYSTICTUS Cope, Proc. Acad. Phila., 1865, p. 191; *Crotalus lugubris* Jan, Icon. Gén. Ophidiens, Livr. 46, pl. 3, fig. 3; *Crotalus ximenesii* Dugés, *Naturaleza Mexico*, 1877, pl. i, fig. 1, 1820; p. 23.

Table land, *Sartorius*; Guanajuato, *Dugés*; Valley of Mexico, *Herrera*.

**CROTALUS TRISERIATUS** "Wiegm.", teste Wagler; *Uropsophus triseriatus* Wagler, Naturl. Syst. der Amphibien, 1830, p. 176; Cope, Proc. Amer. Philos. Soc., 1884, p. 179; *Crotalus lugubris* Jan, Prodrome d'un Iconogr. Descr. des Ophidiana, 1859, p. 31, pl. E.

Guanajuato, *Dugéé*; Jalapa, *Flehr*; Toluca, *Vasquez*; Zacualtipan, Hidalgo, *Bernad.*

**CROTALUS INTERMEDIUS** Fischer, Abhandl. d. Natur.-Wiss. Ver. Bremen, vii, p. 230; 1881, pl. xiv, figs. 1-3; (very near *C. triseriatus*).  
"Mexico."

**CROTALUS ADAMANTEUS** Pal., de Beauvois; Baird, Girard, Catal. Rept. N. Amer. Serpents, p. 3.

Subspecies **SCUTULATUS** Kenn., Cope, Check-list, 1875, p. 33; *Caudisoma scutulata* Kenn., Proc. Acad. Phila., 1861, p. 207.

City of Chihuahua, *Wilkinson*.

Subspecies **ATROX** Baird and Girard, Cope, Check-list, 1875, p. 33; *Crotalus atrox*, Baird and Girard, Catal. Rept. N. Amer. Serpents, p. 5.

City of Chihuahua, *Wilkinson*.

**CROTALUS MITCHILLII** Cope, Proc. Acad. Phila., 1861, p. 293.

Lower California, *Xantus*.

**CROTALUS ENYO** Cope, Proc. Acad. Phila., 1861, p. 293.

Lower California, *Xantus*.

## ADDENDA.

### **Hypopachus** Keferst.

**HYPOPACHUS OXYRRHINUS** Boulenger, Ann. Magaz. Nat. Hist., 1883, xi, p. 344.

W. Mexico, Presidio, *Forrer*.

Rana Linn.

**RANA FORRERI** Boulenger, Ann. Magaz. N. Hist., 1883, xi, p. 343.

Presidio, W. Mexico, *Forrer*.

**RANA PUSTULOSA** Boulenger, l. c., p. 343.

Ventanas, *Forrer*.

### **Eublepharis** Gray.

Boulenger, Catal. Liz. Brit. Mus., 1885, p. 230.

**EUBLEPHARIS FASCIATUS** Boulenger l. c., p. 234.

Ventanas, *Forrer*.

### **Cophias** Fitzinger.

Boulenger, Catal. Liz. Brit. Mus. 1885, p. 417.

**COPHIAS HETEROPUS** Böttger; *Herpetochalcolis heteropus* Böttg., ver. Offenb. für Naturk., 1883, p. 150.

Central America, *Böttger*.

### **Eumeces** Wiegm.

**EUMECES BOUCOURTII** Boulenger, Ann. Mag. Nat. Hist., 1883, xi, p. 342.

Presidio, N. Mexico, *Forrer*.

Rena Bd. Gird.

**RENA TENUICULA** Garman; *Stenostoma tenuiculum* Garman, Mem. Mus. Comp. Zoölogy Cambridge, 1883, p. 5.  
San Luis Potosi, *Garman*.

Helminthophis Peters.

**HELMINTHOPHIS EMUNCTUS** Garman; *Typhlops (Idiophlops) emunctus* Garman, Mem. Mus. Compar. Zoölogy Cambridge, 1883, p. 3.  
Panama, *Garman*.

Rhabdosoma D & B.

**RHABDOSOMA LATIFRONTALE** Garman; *Geophis latifrontalis* Garm., Rept. Batrach. N. Amer., Mem. Mus. Comp. Zoölogy Cambridge, 1883, p. 103.  
Nearest *E. multitorques*, but has the rostral plate prolonged on the top of the muzzle.  
Fifty miles so. St. Luis Potosi, *Palmer*.

Dipeltophis Cope.

Antea, p. 58.

**DIPELTOPHIS ALBOCINCTUS** Fischer; *Leptognathus albocinctus* Fischer, Jahrb. d. Wiss. Anst. Hamburg, ii, p. 109.  
? Lower California ("California" Fisch.) *Behrens*.

The family Scaphiopidae, page 12, should be Pelobatidae.  
Genus *Herpetos*, page 60, is placed in the division of the Colubrinae with ungrooved teeth. This was done in accordance with the statement of Dr. Günther to that effect, made in the Annals and Magazine of Natural History. Dr. Boulenger informs me by letter that the last maxillary tooth is grooved as stated by Jan, in which I have followed him in Proceeds. Amer. Philos. Soc., 1887, 494.

The species included in the above enumeration are distributed into families, as follows:

	Genera.	Species.
<b>BATRACHIA.</b>		
<b>Urodela:</b>		
<i>Ambystomatidae</i> .....	1	3
<i>Plethodontidae</i> .....	4	11
<i>Desmognathidae</i> .....	1	1
<i>Caeciliidae</i> .....	4	8
<b>Anura:</b>		
<i>Bufo</i> idae .....	5	23
<i>Rhinophrynidæ</i> .....	1	1
<i>Scaphiopodidae</i> .....	1	3
<i>Hylidae</i> .....	9	37
<i>Cystignathidae</i> .....	10	32
<i>Engystomidae</i> .....	1	2
<i>Phrymoscidae</i> .....	2	3
<i>Dendrobatidae</i> .....	1	5
<i>Ranidae</i> .....	2	6
<b>REPTILIA.</b>		
<b>Crocodilia:</b>		
<i>Crocodiliidae</i> .....	2	3
<b>Testudinata:</b>		
<i>Cistudinidae</i> .....	1	1
<i>Emydidae</i> .....	3	15
<i>Cinosternidae</i> .....	3	12
<i>Chelydridae</i> .....	2	4
<i>Cheloniidae</i> .....	2	2
<i>Sphargidae</i> .....	1	1
<b>Lacertilia:</b>		
<i>Gecconidae</i> .....	6	14
<i>Eublepharidae</i> .....	2	2
<i>Anolidae</i> .....	1	53
<i>Iguanidae</i> .....	15	75
<i>Xenosauridae</i> .....	1	1
<i>Helodermidae</i> .....	1	1
<i>Anguidae</i> .....	5	29
<i>Xantusiidae</i> .....	1	3
<i>Telidae</i> .....	5	24
<i>Scincidae</i> .....	4	12
<i>Gymnophthalmidae</i> .....	2	2
<i>Anelytropidae</i> .....	1	1
<i>Chirotidæ</i> .....	1	1
<b>Ophidia:</b>		
<i>Stenostomidae</i> .....	2	7
<i>Typhlopidae</i> .....	4	7
<i>Pythonidae</i> .....	1	1
<i>Boidae</i> .....	5	10
<i>Charinidae</i> .....	1	1
<i>Nothopidae</i> .....	1	1
<i>Colubridæ</i> .....	73	243
<i>Calamariinae</i> .....	26	66
<i>Coronellinae</i> .....	8	31
<i>Scytalinae</i> .....	7	23
<i>Colubrinae</i> .....	13	48
<i>Dipsadinae</i> .....	3	18
<i>Leptognathinae</i> .....	8	18
<i>Dryophidinae</i> .....	1	3
<i>Homalopsinae</i> .....	12	36
<i>Elapidae</i> .....	1	17
<i>Hydrophidæ</i> .....	1	1
<i>Crotalidae</i> .....	9	27
<b>Total batrachia and reptilia.</b> .....	197	705

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[Names in *italics* are synonyms.]

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